

20th Annual Report

ROM

July 1969 - June 1970

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The cover: Pottery head, painted and inlaid with shell; from a near-lifesize carved wooden figure from the Sepik River area, New Guinea. The Elder Collection, ROM 969.330. 169a, b



ROM

ROYAL ONTARIO MUSEUM

100 Queen's Park, Toronto 5, Canada

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P.S.
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LIBRARY
ROYAL ONTARIO MUSEUM

Report of the Board of Trustees of the Royal Ontario Museum

TO THE LIEUTENANT
GOVERNOR IN COUNCIL
PROVINCE OF ONTARIO

July 1969 – June 1970

On behalf of the Board of Trustees of The Royal Ontario Museum incorporated 1st Session, 28th Legislature, Ontario, 17 Elizabeth II, 1968, I have the honour to submit herewith the Annual Report for the period July 1, 1969, to June 30, 1970. This report will represent the 20th Annual Report of the Museum.

The Board of Trustees was enlarged during the year by the appointment of Mrs. Donald C. Early, of Toronto, Mrs. A. J. Grout, of Sudbury, and Col. D. B. Weldon, of London, Ontario. In addition, the membership-at-large, as provided under the Act of Incorporation, elected to the Board Mrs. W. B. Harris, Clair Stewart, and D. C. Webster, all of Toronto.

It is with sincere regret that we record the death of Martin L. Wills, Vice-Chairman of the Board of Trustees. Mr. Wills was intensely interested in every aspect of the Museum's complex life, and his passing represents a great loss to the Board and the Museum.

It is also with profound sorrow that we record the death of Moffatt St. A. Woodside, who passed on since the close of our annual year. Professor Woodside was for many years an outstanding member of our Board, and his loss as a member and friend will be sadly felt. He was Chairman of a Memorial Committee which has as its purpose the proper

recognition of those men and women who over the years have contributed signal service to the work of the Museum.

The Royal Ontario Museum continues to work closely with the University of Toronto and other provincial universities through cross-appointments of staff, and will co-operate in all matters which will be to mutual advantage. The liaison with the U. of T. has been strengthened further by the creation of a Committee to develop a common policy with the University authorities on matters having to do with the Museum's physical plant.

Over the years, a number of individuals have contributed in many ways to the welfare of the Museum, and it was felt that services rendered by past Trustees should be officially recognized. Accordingly, the following have been elected as Honorary Trustees: Dean A. D. Allen, Dr. Ronald Allen, W. M. Vacy Ash, Prof. M. B. Baker, Dr. L. G. Berry, Dean Vincent Bladen, Henry Borden, Q.C., Mrs. H. A. Bruce, Mrs. W. H. Clarke, Mrs. C. L. Gundy, Dr. T. A. Heinrich, R. A. Laidlaw, The Honourable J. Keiller Mackay, Beverley Matthews, Q.C., J. A. McDougald, N. J. McKinnon, His Excellency The Right Honourable Roland Michener, Dr. O. M. Solandt, Senator J. A. Sullivan, Dr. W. E. Swinton, H. M. Turner, Mrs. O. D. Vaughan, A. G. Walwyn, and J. R. M. Wilson.

During the year, Col. R. S. McLaughlin and Mrs. Samuel Zacks were elected Patrons of the Museum in grateful recognition of their devoted interest in and important contributions to the Museum.

During the year, there were eight major and special exhibitions and twenty-five smaller exhibitions held within the Museum buildings. There were eight exhibitions relating to stamps, and fourteen lectures were given on technical, historical and contemporary subjects. The ROM buildings lend themselves to social functions and ten receptions were held.

The McLaughlin Planetarium proved to be very popular with both educational and cultural programmes. The response of members, students, teachers, and the public to the public shows was most encouraging to Dr. H. C. King, the Curator, and his staff.

The Board acknowledges the excellent work done by Dr. Peter Swann the Director, the Curators, and all the members of the staff in promoting wholeheartedly the interests of the Museum, and tenders its thanks accordingly.

The Director's Report to the Board for the year ending June 30, 1970, is attached.

Respectfully submitted,



Chairman of the Board of Trustees.

Report of the Director of the Royal Ontario Museum

July 1969 – June 1970

The year under review has been one of progress. It would be unjust not to acknowledge that this renewal of many aspects of its life – and the hope it engenders after so many years of neglect – is greatly due to increased support from the Provincial Government via the Department of University Affairs. The ROM is a very broad educational resource which serves every level of education – from children, through university students to adults. The demands upon it are increasing rapidly both in quantity and quality. It can fulfil its potential only if adequately financed and happily there are strong indications that our government, Provincial if not Federal, is sensitive both to its contribution to society and to its needs. Above all, it is a serious, non-violent institution, a “centre of excellence” in the best sense of the term.

The malaise among young people and the consequent disturbances which have shaken universities in the '60s may well in some way affect museums and art galleries in the '70s. Neither cause nor time exists for complacency and the ROM is constantly trying to assess and reassess its role and its functions. Museums have gained a new popularity during the last few years but, like all living and lively institutions, they must, if so required, be prepared to change. Their present popularity indicates that they may be required to do more of what they are doing, to take advantage of new techniques, and to do it better. Perhaps their strength lies in their very calmness. The need may be for more basic changes. Certainly the public, both in Toronto and throughout Ontario, will demand more of them. The Province is fortunate to have a resource of such wealth and depth that, given the necessary support, it can respond positively to any challenge. A danger perhaps lies in trying to be all things to all men, in trying to meet all claims, to do too much with too

little, in not defining goals. As in the United States, museums must consider seriously how far they should restrict themselves to performing and improving their traditional roles within a changing society and how far they should give in to strong pressures to take a more active socio-political role in society. The choice is fundamental and difficult. The Director is grateful for the help his many experienced and responsible staff members have given him.

A special grant from the Committee on University Affairs has enabled the Museum to employ a progressive firm of architects, Messrs. Moffat, Moffat and Kinoshita, to initiate a survey of a possible phased development. Their very detailed study has compelled the various departments to consider their future very carefully, as well as their past development and their relationship with other departments. Some staff members are understandably a little disillusioned with making plans for the future, an exercise they have performed time after time in the past only to see their hopes dashed and major funds placed elsewhere. However, on this occasion, they have been encouraged to respond again with mounting enthusiasm, convinced that at last the Government may be serious in its intentions. Yet another disappointment would indeed prove disastrous to morale.

Each department has its own view of its functions. Each curator has his or her own contributions to make to the life of this varied and complex institution and to the intellectual resources of the province and country. Some are very public orientated, some more research orientated, especially if they have no gallery space to challenge them – but all provide valuable services in one way or another either to the public or to the world of scholarship. Most are under pressure, many are overworked and held to their posts in antiquated, uncom-

fortable quarters, only by a sense of dedication. Fortunately salaries have at last reached parity with those in the universities and our staff members no longer suffer from being considered second-class academic citizens.

Thus, the Museum enters a new decade with hope that its needs will be met and that after nearly 40 years it may be allowed to expand. A preliminary study on temperature control and air-conditioning carried out by the firm of O. G. Moffat revealed many problems. The effects of our climate and of air pollution on fine objects in a non-controlled environment are truly alarming. No responsible community should allow irreplaceable treasures to deteriorate whatever the cost.

For many years staff members have willingly provided specialized teaching for University of Toronto departments without charge – an imposition which, with the sympathetic help of the Liaison Committee, it is hoped will be corrected. At the same time other Ontario universities are increasingly seeking the services of our experts and the use of our resources for which they are prepared to recompense the Museum on a fair basis.

The U. of T. recognizes the justice of the principle but its various departments find it more difficult to find the funds than other universities. However, we are indebted to Deans Allen and Sirluck and to Dr. Chant, Chairman, Department of Zoology of the U. of T. for their most sympathetic appreciation of our problems and for their willingness to make equitable adjustments. The resignation of Dr. Claude Bissell unfortunately removes not only one of this continent's finest university presidents but also one deeply concerned for the welfare of the Museum. Dean Sirluck's departure for Alberta deprives us of a Dean of Graduate Studies who fully understood, appreciated and took pride in the con-

tribution of the Museum to the intellectual resources of the University.

On the positive side, the restaurant designed by the firm of Allward and Gouinlock and financed by the Provincial Government, Colonel McLaughlin and the McLean Foundation, is growing fast (see below). The contract was awarded to Messrs Weren, the lowest bidder. The new complex will comprise a children's cafeteria, an adult cafeteria and a small Members' Room and should be finished by the end of this calendar year. A new fire-alarm system, exit lights and auxiliary power source also were installed during the year.

Work in progress on the new ROM cafeteria

Within the old building gallery renovations continue apace. The fine Chinese collections are being reinstalled, a new Islamic gallery was created and progress is accelerating on the Vertebrate Palaeontology (Dinosaur) gallery. The shop, information desk and turnstiles were remodelled. Space was found for the installation of complex equipment to implement the National Research Council grant.

The Museum suffered a great loss in the death, at an early age, of Mr. Martin L. Wills, Vice-Chairman of the Board of Trustees. An ardent collector of Canadiana, Mr. Wills was also intensely



interested in every aspect of the Museum's complex life. He visited every department, made friends of all the staff and was of unfailing encouragement to all – not the least being the Director. A man of great personal generosity, he was also tireless in his fund-raising. Above all he was a positive thinker and a man of decision who welcomed new, even if sometimes unconventional, ideas. The zest for life of this great Canadian was an infectious example and his untimely death robs the Museum of an unfailing support and many of the staff of a warm-hearted, personal friend.

The Museum said farewell to three long-term staff members – Miss Winifred Needler, Mr. John Mair and Mr. Ewart Robertson. The world of Ornithology lost a well loved figure in the death of Mr. James L. Baillie. Tributes to them are included on departmental reports. We welcome Dr. Nicholas Millet as head of the Department of Egyptology which Miss Needler, now Curator Emeritus, guided with distinction for so long.

Publications produced both by the Museum and through other channels continue at a very high rate but, unfortunately, shortage of funds will henceforth restrict this programme. The Bibliography (page 63) lists nearly 140 contributions from staff members for the year. At the same time the media are becoming increasingly aware of the Museum's vast resources of interesting material for press, radio and television coverage. The Museum welcomes these demands, but a means must be found to meet them without totally disorganizing the institution and to ensure some return for services rendered. Without doubt much future Museum service lies through such demands for good quality television and, though only fledgling, the new Film Library and Archives has made a start in this direction.

The budget for 1970-71 totals \$3,575,000. This is short of our request by nearly \$500,000. Thus, no expansion of services will be possible and the Museum must spend the year in consolidation of past gains. However, as mentioned above, the Department of University Affairs provided an extra \$50,000 for the Architectural Phasing Study – a constructive initiative which the public will appreciate as a sign of interest though not a promise of future development.

Attendance last year was 1,369,034. This year it was slightly lower at 1,330,804. The small decline can be attributed to the fact that the novelty of the Planetarium had worn off and other long-needed

counter-attractions in the city have opened. The maintenance of the general very high level of attendance is very gratifying. One of the greatest needs is for funds to enable the Museum to open in the evenings. Attendance would then show a considerable increase.

The outstanding acquisition of the year was a collection of about 400 objects from New Guinea – perhaps the last large collection to come out of that area. Their value lies not only in their visual qualities but also in their documentation. A special exhibition will be held beginning in November 1970. The ROM now has one of North America's three great collections of New Guinea material.

During the year the name and assets of the National Portrait Gallery were turned over to the Museum and placed in the custody of the Canadiana Gallery for development.

During the year the Director was for the first time able to visit one of the Museum's foreign archaeological expeditions, in British Honduras. Accompanied by Mr. Hugh Pryce-Jones, a Trustee very well informed on Maya archaeology, he returned to the Government of that country the great jade head discovered by our scientists at Altun Ha. This visit to the "dig" run by Dr. and Mrs. David Pendergast was a splendid experience and an illustration of the tremendous credit Canada gains from such work – happily now supported in more generous measure by the Canada Council. This is an area in which Canada could and should establish an international reputation. It is non-political and, at little cost, can only do good.

Fund-raising continues to absorb much of the time and energies of the Director. Four years ago the Museum's purchasing resources from the government were \$18,000 per year to share among all the departments – which worked out at less than \$1,000 per department. Three years ago a Purchase Trust Fund was launched and such was the response from generous benefactors that the Fund now stands at about \$400,000. The core of this fund is The Group of 100, a body of what we hope will be at least one hundred firms or individuals who give \$1,000 per year for ten years (or less if circumstances so decree). The Group is now just over 80 strong. Only the interest of the Fund is used. Each member receives a handsome album for which the Museum provides photographs of items acquired with its help – an on-going record of the results of members' support. Already the Fund

has enabled the Museum to enrich the public's collections where otherwise it would have been forced to refuse important objects – often only to see them leave the country.

The Museum and the community are most grateful to this group of public-minded corporations, men and women. We hope to fill out the group membership with a further twenty members. The Director hastens to add that there are many well-wishers who are not in a position to donate \$1,000 but who have willingly helped with smaller sums. They are no less welcome. The aim is for a broadly based support to match the broadly based attendance.

Perhaps the most disappointing aspect of the year has been the failure to obtain from the Federal Government a sign of any kind that they are prepared to accept a national responsibility for stimulating this type of cultural service. In view of the ROM's pre-eminence and its service to Canada both at home and abroad, this attitude from a responsible government is most difficult to understand. Without the assistance of the Canada Council, the Canadian cultural scene would indeed present a bleak and sorry picture. However, it too has not been treated with generosity by the Federal Government and cannot expand its work. Unfortunately, the Council appreciated the needs, services and problems of museums a little late and without increased funds it is now not in a position adequately to support and stimulate the museums of the country.

One indication of the internal health of the Museum is the growing interest of the curatorial staff in the organization, integration and future of the institution as a whole. This has resulted in a number of internal committees which meet and make recommendations to the Director, which assume the responsibility for finding solutions to problems which he puts to them and which are, in some instances, able to solve difficult situations which inevitably arise in large and complex organizations.

The Director recently asked all curatorial staff for a "Group Think" on the future of the Museum. The suggestions and forecasts were summarized and have proved most enlightening in planning for any future developments. A major self-criticism is that internal communications need to be improved.

The increased tempo of all Museum activities has meant that the service departments have been called upon for more work. Display, Registration,

Preparators and Carpenters have all met well the challenge – often at times of extreme discomfort due to the lack of climatic control. It is extremely taxing to perform hard physical work in a humidex discomfort rating of over 100. These departments give muscles to an organization but the individual departments calling upon them often are not always able to appreciate other demands they are trying to satisfy. A system has been inaugurated to establish a schedule and priority rating. It is hoped that this will at least provide a total picture of all work in progress.

Mr. J. H. Harvey, Secretary-Treasurer, has continued to provide invaluable service and the Museum owes him a debt for a year's very hard work. Mrs. Helen Downie has organized a remarkable year of activities and Mr. Bruce Easson has publicized them. Mr. V. Roberts, Financial Administrator, safely negotiated the first year of independent audit and has kept the Museum financially straight. A number of specialists within the Department of University Affairs have proved most helpful in our first years of independence. Mr. W. Brown and his colleagues at Blake, Cassels, have been sources of valuable legal advice above and beyond what might normally be expected of them.

We are grateful to Messrs Pilkington for the gift and installation of the new glass doors and General Motors provided 150,000 copies of a Planetarium Brochure to be given to children. The Xerox Corporation of Canada has just made a gift of \$18,000 to produce a long-needed guide book which will be produced next year. This is an encouraging sign that U.S. subsidiaries are beginning to accept a social/cultural responsibility in Canada.

Mr. Harold Crang made a large gift of guns and money to add to his already very appreciable trust fund. Mrs. Edgar Stone continued her generous and discriminating gifts. We are indebted to Metro Toronto for a modest grant. However, the outstanding benefaction came from the estate of the late Samuel Zacks who left about 500 antiquities from his renowned collection and \$250,000 towards the extension of the building and the provision within it of a Samuel and Ayala Zacks Gallery. This is rare munificence indeed and an example which, we hope, may inspire others. It will surely do so when an extension is authorized.

The Director, like many staff members, gave a number of lectures, radio and television talks and wrote newspaper articles. He continued to edit *Oriental Art* for the fifteenth year and visited Japan for the opening of Expo '70 on the invitation of the Ontario Department of Trade and Development. Brock University honoured him with a Doctorate which he considers as an institutional honour to the ROM and to the museum profession as a whole. He served on Council of the Canadian Museums Association.

The Royal Ontario Museum is a proud institution of learning, a touchstone of the quality of our lives and an assurance that the heart of the City of Toronto, unlike those of some less fortunate cities, will not die.

Office of the Chief Archaeologist

Dr. A. D. Tushingham,
Chief Archaeologist
Dr. W. A. Kenyon, *Associate Curator*
Dr. D. M. Pendergast, *Associate Curator*
P. Storck, *Assistant Curator*
Miss M. Clavir, *Research Assistant*
Selwyn Dewdney, *Research Associate*
M. Gough, *Research Associate*
P. Harrison, *Research Associate*
K. R. Macpherson, *Research Associate*
Dr. D. A. Nelson, *Research Associate*

Claus Breede, *Scientific Illustrator*
R. S. Hill, *Assistant to Scientific
Illustrator*
George Pawlick, *Senior Technician*
Mrs. J. Hosek, *Junior Technician*
M. A. Lee, *Junior Technician*
F. Pryor, *Junior Technician*
Miss L. M. H. Hoskins,
Secretary to Chief Archaeologist
Miss Peta Daniels, *Stenographer*

Dr. A. D. Tushingham records a year of very considerable achievement despite the hopeless lack of space, mention of which seems yearly to haunt the pages of the museum's Annual Reports.

However, a system has now been initiated whereby the ROM will collaborate with provincial universities by cross-appointing competent members of their academic staffs to the ROM staff as Field Directors of Museum expeditions. The first such joint enterprise, in the Quintana Roo territory of Mexico, involves Professor Peter Harrison of Trent University. He had already carried out a preliminary exploration, negotiations are being completed with the Mexican Government and he should enter the field in the spring of 1971, first to map and then to plan a full-scale operation for 1972. Such collaboration brings together teaching and field work and provides an opportunity to train Canadian students who will one day direct Canada's projects abroad.

A similar joint ROM/Trent University scheme is projected for Peru but as yet it has not been possible to find a Field Director for this area.

Dr. and Mrs. D. M. Pendergast this year brought their project at Altun Ha, British Honduras, to a most successful conclusion – leaving behind a model site with two open plazas, five pyramids and palace buildings rising on all sides. This outcome of seven years' work has delighted the Government of British Honduras and enhanced Canada's reputation abroad. Mr. Hugh Pryce-Jones and the Director visited British Honduras briefly in April to return to the Government the spectacular jade head of the Sun-God, Kinich Ahau, now the country's national treasure, and to spend a few days on the site of so much Museum investment. Government officials were highly appreciative of the Canadian involvement and of the Pendergasts' achieve-

ments. It is of interest to note that Mrs. Pendergast, who plays such an able and sympathetic role in organizing the camp has also become an expert bird watcher. Thus the camp acted as host to a group of twelve members of the Canadian Audubon Society led by Mr. D. H. Baldwin. Dr. Pendergast has in the past year produced three *Occasional Papers* on various aspects of archaeology in British Honduras.

In the British Virgin Islands, the underwater project "Virginquest" continues under the direction of Dr. David Nelson. A clear over-all picture of the major wrecks is now available and this year the crew should be able to concentrate their work. The expedition is becoming a testing ground for new techniques of underwater archaeology and in this direction our thanks are due to Varian Associates of Palo Alto, California, and to Mr. Roger Hutchins of Huntex Corporation in Toronto. Unfortunately, this kind of underwater material is particularly tempting to vandals. The Secretary-Treasurer visited the Islands to negotiate with the Government for the protection of these sites and to encourage them to establish a museum to display the discoveries – both with some success.

The excavations at Godin Tepe, in Iran, continued in 1969 under the leadership of Dr. T. C. Young – particularly in the area and level of the stronghold of the Median King of the 7th century B.C. Dr. Young expands on his findings in his report for the West Asian Department (p. 23).

The Museum once more participated in the excavation of Siraf, an early Islamic site on the Persian Gulf. Mrs. Barbara Stephen of the Far Eastern Department joined the expedition – her chief interest being the Chinese export porcelain found at the site.

Dr. Michael Gough of the Pontifical

Institute of Mediaeval Studies was cross-appointed to the Museum staff a year ago and continues his excavation of the 5th century Byzantine Monastery at Alahan in Turkey. This project which he has directed for some years as Director of the British Institute of Anatolian Studies in Ankara, now becomes a Canadian undertaking. It is important because it contributes to our knowledge and understanding of the transition from the classical civilization of Greece and Rome to the European Middle Ages and the Modern World.

It must not be thought that our archaeologists in any way neglect research in Canada but, since many other institutions work in this country and few do so abroad, our efforts are restricted to Ontario. However, this is no small responsibility in itself – the needs far outstripping the resources of this and other agencies. Trained archaeologists are scarce and space at the ROM is totally lacking.

Mr. Peter Storck joined the staff to work in archaic and paleo-Indian remains and a cubby-hole office was found for him. It was hoped to hire another expert to work on this largely untouched North of Ontario, but no space could be found to house him and perforce we were forced to release our claim on him. The Smithsonian gained by our loss!

In Ontario Dr. Kenyon continued to work on burial mounds in the Rainy River district and with Robert Wheeler of the Minnesota Historical Society once more took up work on the early trade routes of the mid-west. Mr. Storck is surveying early sites in Killarney Provincial Park north of Georgian Bay, in the hope of finding new evidence on the puzzling culture of Shegwiandah on Manitoulin Island, a site excavated some years ago by Dr. Thomas Lee.

The Archaeological Council on Canadian



Waterways (ACCWA) had a busy season of diving in 1969 – some seven groups investigated wrecks in Lakes Ontario and Huron and in Georgian Bay. Monthly meetings under the chairmanship of Ken MacPherson evaluate results and plan future projects. Thus a valuable link is being formed between “sportsmen” divers and professional historians and archaeologists of the Province.

In the summer of 1969 Selwyn Dewdney continued his work on Indian pictographs. His main task must now be that of dating – a most difficult undertaking.

Mr. D. B. Webster, Curator of Canadiana, describes the results of his excavations at Nun’s Island, Montreal in his departmental report (p. 9).

Finally, fieldwork should result in publications. The modest but very popu-

lar *Archaeological Newsletter* has now appeared monthly for five years. Articles appear regularly in *Rotunda* and five *Occasional Papers* have been published in the last year. The Chief Archaeologist has collaborated on a *Historical Atlas of Bible Lands* to appear in the autumn of 1970. His final report on an excavation in East Jordan in 1952-53 is in course of publication and he now faces a major responsibility – the publication of seven years’ work in Jerusalem.

It is sad to report that the public is deprived for yet another year by space restrictions of so many fascinating displays of the results of Museum work both at home and abroad. We cannot display the archaeology of Canada, the prehistory of our own Indians, the fine collections of old world prehistoric artifacts – perhaps the best on the Continent. The Mexican collections have not

changed for twenty years – not even to accommodate the Altun Ha material. The Peruvian Gallery is equally static. Given the opportunity, the Museum has the material and intellectual resources to provide displays of tremendous interest – as well as to show what we are doing and how the support is being used

One of the most heartening aspects of the year has been the increasing support of the Canada Council to help the Museum to meet requests for increased involvement in archaeological work in Latin America. It is a challenge we welcome and of benefit to all.

Canadiana Department

D. B. Webster, Jr., *Curator*
 Mrs. Helen Ignatieff, *Curatorial Assistant*
 Mrs. Mary Allodi, *Research Assistant*
 (P/T)
 Miss C. J. Holmes, *Research Assistant*
 Miss K. Haslan, *Department Secretary*
 Miss N. J. Willson, *Technician I*

The Department, according to its Curator, D. B. Webster, is under heavy pressure and badly underfunded for acquisitions. It is indeed difficult to understand how a Department so vital to the preservation of Canada's past, and upon which so many demands are made, should be in need at a critical period for improving the collections. Purchase funds do not keep up with prices. As a result, major treasures which should be in permanent public keeping are totally beyond our reach; funds are constantly over-spent; and space is now desperately short. Library funds, as well, do not keep pace with current publications.

However, in the field the archaeological projects at the site of the Jacques LeBer house on Nun's Island, Montreal supported in part by the Ministère des Affaires Culturelles du Québec and the Canada Council was successfully completed (see *Rotunda*, Winter 1970) and a 22-minute film records its highlights. Exhibitions included "Niagara Falls," "Ships and the Sea," "Narratives of Discovery," and "Profile of a Geologist-Artist A. P. Coleman." Travelling exhibitions, circulated by the Art Gallery of Ontario, included "Water Life in Canada, 1830-80," "Early Transportation by Land and Sea," and "Canadian Cartoons and Caricature, 1949-69." The Department lent objects to the Canadian Pavilion at Expo 70, Japan, to the Glenhyrst Art Council, exhibitions of the works of "Robert Whale," to Winnipeg's "150 Years of Art in Manitoba" and to an opening at the St. Thomas Art Gallery.

Lectures by staff members, the Curator, Helen Ignatieff and Janet Holmes, are always popular with the public, and they contribute very considerably to the teaching resources of the U. of T. Department of Fine Arts. The recataloguing of the entire collection of prints, maps and watercolours is in its last stages, and the slide collection of about 5,000 slides is being rebound. Attendance was 22,979 – about 75 times less than at the main building!

Despite shortage of funds, a combination of opportunism and good fortune led to the purchase of about 100 new items. These included two pastel portraits by William Berczy, a number of watercolours and prints acquired at Sotheby's auctions, glass models of a steam engine, ferris wheel and chair swing made about 1940, three extremely fine pieces of English-Canadian furniture, four early Indian trade guns, as well as other paintings and watercolours, pottery and glass. Some 30 gifts and bequests came from generous and interested benefactors including J. Harold Crang, the International Commission on Glass, the Laidlaw Foundation, John E. Langdon, Mrs. D. MacFeeters, Ridpaths Limited, Mrs. Edgar J. Stone, Mrs. Charles S. Band, Mary Adelaide Lindsay, Zella W. McGraw, and Dr. I. O. Woodruff.

The Department would like to add its tribute to the late Martin Wills, whose interest and encouragement in this field of particular interest to him was unflinching.

Bird's-eye view of the Canadiana excavations on Nun's Island, Montreal



Conservation Department

Bernard Leech, *Associate Curator-in-Charge*

Mrs. M. K. Allan, *Curatorial Assistant*

Mrs. E. A. Phillimore, *Conservator*

Mrs. C. R. Jack, *Assistant Conservator*

J. R. Chalmers, *Assistant Conservator*

Mark Burnham, *Trainee Conservator*

Mrs. J. M. Griffith, *Trainee Paper Conservator*

Professor U. Franklin, *Research Associate*

Miss M. T. Smith, *Department Secretary*

Conservation has shared the general increased tempo of work. The Associate Curator-in-Charge, Mr. Bernard Leech has acquired some new equipment to increase its research facilities but far and away the greatest need is for Carbon 14 dating equipment for which the ROM is the logical place. Advances in miniaturization and reduction in complexity of this equipment now makes it possible to install it in a relatively small room. It would serve many departments and prevent very long waits – sometimes over a year – for specimens to be treated abroad.

Thanks to a Canada Council grant, the Department has been able to launch a technical study on bronzes. This will engage the expertise of a new Cross Appointee, Professor U. Franklin from the University of Toronto Department of Metallurgy, and other experts.

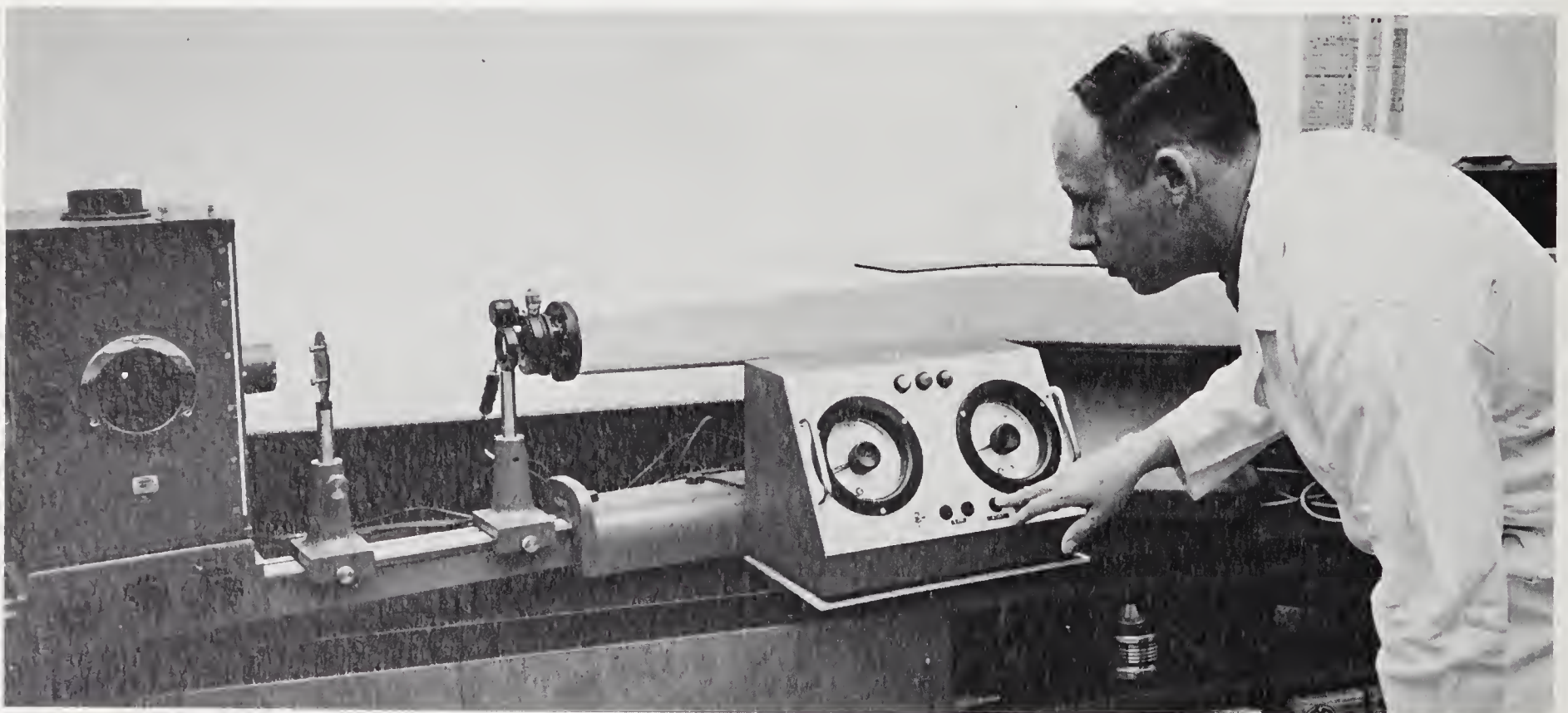
Temperature and humidity control continue to cause gravest concern and many studies have been made of different areas. Much time was spent with engineers and architects concerning future basic requirements. The effects of artificial lighting are also closely under study.

In a museum the size of the ROM the stream of objects needing conservation is endless – some being of an immediate and urgent nature. The prime example of such an urgent conservation task was the outstanding collection of New Guinea objects which came from an area of high humidity and which needed immediate stabilization. Again bronze disease in the Chinese collection and elsewhere required on-going treatment. Cleaning of

the Paul Kane paintings continued in preparation for exhibitions abroad and in the museum. Mr. Leech reports that the most challenging task was the conservation of two very large leather wall-hangings for the European Department's new Baroque Room – a task now splendidly completed. He again emphasizes the need for more guards to protect our treasures, particularly in the European Department which is most vulnerable. Members of the staff gave a number of lectures on their various specialities. The various physical changes in the Department should be complete by the forthcoming year and all equipment should then again be operational.

Statistics can be interesting in that this Department made condition reports on 2,105 objects and treated nearly 1,000 – a slight decrease compared with last year due to a number of major, time-consuming tasks. The public consulted the Department on about 350 occasions – yet another valuable though unheralded service to the general public. The Department is still short of one major position, that of a ceramics restorer.

Bernard Leech using the emission spectrophotograph to analyze a minute sample of bronze from the Far Eastern Collection



Egyptian Department

Miss Winifred Needler, *Curator*
N. Wasiliw, *Technician*
Miss Annette Jarek, *Department*
Secretary

Miss Winifred Needler, Curator of the Egyptian Department, reports on the eve of her retirement after thirty-five years of service in the Royal Ontario Museum. No major projects were undertaken this year but all efforts were concentrated on a large number of small housekeeping jobs in order to leave office records, galleries, storage and current activities in a reasonably comprehensible state for the incoming Curator, Dr. Nicholas B. Millet.

However, one house-keeping job was more than routine, i.e. the re-installation of our study collections in the new Egyptian study-storage room. The inter-departmental shifting of storage space involved vacating the old Egyptian study-storage room many months before the new quarters were finished. The study collections were crowded temporarily into part of the new room until total occupancy was possible in the summer of 1969. The final re-installation and rationalization of the material could only take place after the departure of nine graduate students accommodated in the study-storage room from September to April. The work was by no means completed at the close of the museum year but is well in progress.

Under her cross-appointment as Associate Professor in the Department of Near Eastern Studies, the Curator again conducted a graduate seminar of two hours a week during two terms. Since enrolment was double that of last year, this involved much more time than previously for the supervision of students' work. In addition she delivered six lectures and six tutorials to a class of thirty undergraduates.

Every department in the Museum plays its part in the international interchange of knowledge. As usual there have been many letters of inquiry from Egyptologists, some of which required detailed reports. The public also seeks informa-

tion which involves innumerable letters, telephone calls and visits from people with objects to be identified, from students, hobbyists and amateurs with questions about ancient Egyptian culture, and from publishers, advertisers and broadcasters with requests for illustrations and other assistance. Such services are not visible but are a most valuable cultural resource without which a nation cannot consider itself civilized.

One notable addition was made to the collection during the year: the upper part of a fine granite statue of a seated royal scribe, about one-half life size. The name of this noble scribe is unknown; it was doubtless carved on the missing base. However, the name of the king whom he served was, according to custom, carved on his right shoulder. He was identified as Amenophis II (1450-1423 B.C.), (*Rotunda*, Winter, 1970). The University of Toronto presented seven fine pottery vessels from Semna (Sudanese Nubia), which it had received for participation in the University of Chicago excavations of 1964.

Another acquisition, coming to the Department from the Greek and Roman Department, is an example of the kind of minor reassessment that is continuous with archaeological collections. This is a fine painted pottery bottle in the form of a fish which many years ago had been tentatively assigned to the late Roman Period. Through the joint research of Dr. Hayes and the Curator, the bottle was identified as late 18th Dynasty Egyptian (14th century B.C.). This is by no means the first occasion on which objects have changed departments as the result of study. In return, more than one interesting object from the Egyptian collection has been transferred to the Roman section.

The Museum again made a contribution to the Egypt Exploration Society of \$1,000 earmarked for Professor W. B.



*Miss Winifred Needler, Curator of the
Egyptian Department*

Emery's excavations at Saqqara. In return for this we have every prospect of receiving good returns in excavated objects, although we can hardly anticipate a repetition of the extraordinary good fortune of our last year's shipment from the Egypt Exploration Society (*Rotunda*, Fall, 1969). An even stronger reason for making this contribution was the necessity to keep in touch with current archaeology in Egypt. This is naturally reflected in the general welfare of the collection and contributes to the Museum's prestige.

The Department prepared a small exhibition of the objects received a year ago from the Egypt Exploration Society in return for our recent contribution to the excavations at Saqqara and Tell el-Fara'in, together with material received from the Society earlier in return for our participation in Professor Emery's 1962-63 excavations at Buhen. The exhibition explained in simple terms the manufacture and use of the objects and, with the aid of maps, drawings, photographs and explanatory labels, the ancient labels, the ancient appearance and modern excavations of the sites. During its unfortunately far too short showing of about three weeks, the exhibition received much favourable comment from students and other interested visitors.

The retiring Curator wishes to record her gratitude to the Board and to the Director for the honour of being appointed Curator Emeritus. It is with the greatest pleasure that she looks forward to a continuing connection, no matter how tenuous, with this museum where she has spent so many wonderful years, taking part in the institution's amazing growth, becoming identified with a fascinating group of colleagues, among whom she has made a host of lasting friends, and steadily deepening her interest in the collection and all that it stands for in Egyptology.

She welcomes Dr. Millet, the new Curator, with enthusiasm, certain that he too will enjoy working here and delighted that the Museum has succeeded in bringing to this department an Egyptologist of his calibre and established reputation. She is especially thankful that he is one of those rare scholars who also are seriously interested in museum work.

The Director would like to add his personal thanks for Miss Needler's loyal support and enthusiasm, for her advice on many matters when he took office four years ago and for her willing co-operation at all times. He is delighted that she consented to accept the position of Curator Emeritus and that her interest along with her connection will not be interrupted.

Mrs. Kay Wood and some fine New Guinea material collected by Peter Austin. Photo Erik Christensen. From the Globe Magazine, Globe and Mail



Department of Ethnology

Dr. E. S. Rogers, *Curator*
 Dr. Helmuth Fuchs, *Associate Curator*
 Dr. J. G. Taylor, *Assistant Curator*
 Dr. C. A. Bishop, *Research Associate*
 Dr. Mary Black, *Research Associate*
 Dr. W. P. Carstens, *Research Associate*
 Dr. T. B. Hinton, *Research Associate*
 Mrs. Joan Vastokas, *Research Associate*
 B. Johnston, *Lecturer*
 Mrs. Kathleen Wood, *Senior Technician*
 Miss Deborah Evans, *Technician II*
 Miss Heather Leaver, *Department
Secretary*
 Miss B. Reynolds, *Stenographer*

This wide-ranging department under Dr. E. S. Rogers has had what surely has been one of its most active years.

Through extraordinary good fortune and the kind offices of Mr. Norman Elder, the Museum acquired a most remarkable collection of over 400 scientifically documented items of material culture from Eastern New Guinea and the Bismarck Archipelago. A major exhibition will open in November, 1970, and a comprehensive handbook and permanent reference work has been completed to accompany it. This is the Department's most important acquisition for many years and recalls the great collecting activity of a bygone era.

The Kane paintings and sketches continue extensively to be called upon. The *Kane Sketchbook* was published. The CBC is working on a programme, based mainly on Museum's material, depicting the artist's travels from Toronto to the West Coast. Mr. Russell Harper's book on his life has gone to press and the National Film Board have prepared a series of ten slides of his paintings. The Washington Historical Society, if they can find a competent scholar to undertake the work, is willing to prepare a manuscript on his sketches made while visiting the West Coast. It is considering appropriating necessary funds to produce the book in collaboration with the Museum.

Through the interest of Mr. M. F. Feheley, the Department's material will be used for the Toronto-Dominion Bank's 1971 calendar. Three of the brilliant "ROM Charts" were produced on the Wood Cree Indians, the Assiniboine and on Musical Instruments. The Museum is also producing six teaching manuals, one of which, "*Indians of the North Pacific Coast*" has appeared.

As Museum resources become ever more popular, the Department finds that

increasingly educationalists, publishers and television producers call on the staff for very time-consuming technical assistance and for material. This, of course, is a service which the Museum is happy to provide. Some commercial films like to associate themselves with the ROM but a means must be found to protect the good name of the Museum against the dangers of irresponsible use of our Indian material and our services. Equally, as requests for loans increase, ways must be found of preserving the safety of the collections we are fortunate enough to own in such quantity.

Gallery work continued though more slowly than has been hoped. With the help of Miss Lisl Levinsohn of the Display Department the section on the Indians of the Subarctic was completed and that on the Indians of the Eastern Woodlands should soon be finished.

Through the support of the Federal Government's Department of Indian Affairs and Northern Development, Mr. Basil Johnston of the Cape Croker Reserve joined the Education Department to lecture on the history of the Indians. The popular demand for his services have been far more than he could meet (see Education Department report, p. 43).

Four students worked in the Department on various projects. Mrs. Sandra Sims joined for a short time and was invaluable in editing and preparing a series of manuscripts for publication but unfortunately shortage of funds resulted in our being unable to retain her.

Six film strips were completed with the National Film Board on the Indians of Canada. Manuals and kits should be ready for distribution to the schools this fall. It is hoped to use this material also to produce a 20-minute film on the Indians of Canada as they were at the time of first European contact.

While the Curator has been tied to his desk, other staff members have been active in the field. Dr. Garth Taylor, in co-operation with the Ontario Department of Lands and Forests, conducted ethnological field work at Lansdowne House, Ontario, initiating a history and community study of the Indians of this particular post. He continued collecting data for a description and analysis of the material culture of the Eskimos of the Eastern Arctic, making two trips to visit 16 major museums in Eastern Canada, the United States, the United Kingdom and France. Again supported by the Ontario Department of Lands and Forests, a preliminary report on this work has been prepared. Finally, an ethnological survey was made of Indian communities in Northern Ontario.

Dr. Helmuth Fuchs spent several weeks at Fort Albany, Ontario conducting ethnological work sponsored by the National Museum of Man, Ottawa and Dr. Mary Black continued her important ethnological studies among the Round Lake Ojibwa of Northern Ontario, a project financed by ARDA and administered by the Ontario Department of Lands and Forests. She has now spent a year and nine months in the field and has returned for the summer to Toronto where, at the Royal Ontario Museum, she will prepare the final reports. The project to date has been more than successful.

Dr. Stegmann of the Department of Anthropology, University of New York at Buffalo has become interested in the feasibility of undertaking physical anthropological studies using Round Lake as a base. He has already made one preliminary survey of the area and it is hoped that through his endeavours in co-operation with Dr. Black's field work will continue in this area for the next four or five years.

The collections increased by approximately eight hundred items.

European Department

Heribert Hickl-Szabo, *Curator*
 Mrs. R. J. Bacso, *Assistant Curator*
 K. C. Keeble, *Curatorial Assistant*
 Ladislav Cselenyi, *Curatorial Assistant*
 George Deronov, *Technician*
 Miss M. de B. Campbell, *Department Secretary*
 Miss Nancy Gilbert, *Stenographer*

The European Department suffers most from lack of air-conditioned galleries and restoration of many of its treasures would, in the present condition, be little more than a waste of time. The survey of our needs in climatic control, for which the Department of University Affairs provided the funds, gives hope that the authorities are at least very aware of the serious problems we face. However, a solution seems possible only with extension and modernization.

The Curator, Mr. Heri Hickl-Szabo, reports that the remodelling of the galleries continued apace during the year. The Museum's fine collection of musical instruments was handsomely reinstalled under the supervision of Mr. Cselenyi and with the expert help of the Display Department. Mrs. Bacso has planned a renovation of the English 19th century area to include the corner once occupied by the musical instruments. It will display mid-Victorian furniture, Art Nouveau and Art-Moderne furniture, glass, porcelain, etc. A third area will be devoted to 19th century porcelain, silver and glass. In Gallery Eight progress was made in creating a Baroque Room – another in the popular series of period rooms. However, plans for this suffered a set-back when a Louis XIV set of two armchairs and a settee which, after much thought, search and discussion the Museum decided to buy from France, were refused an export permit by the French Government as being too important to allow out of the country. We applauded the Curator's choice and his efforts to scour Europe for the very finest objects to show to the public and regretfully deferred to the decision of the French authorities. The Museum is thus doubly appreciative when, shortly after the close of the year, the French authorities, in view of the destination of these precious objects, reconsidered their decision and granted an export permit. It is unfortunate that shortage of funds will not permit the quality of display which their quality merits.

Unquestionably, it will become increasingly difficult to find objects worthy of acquiring for a great museum and museum authorities recognize that by the end of the century the possibility of making major acquisitions will no longer exist. Museum funds for purchase are growing slowly – thanks to both government and private support – but generally speaking the Royal Ontario Museum is priced out of the market. It is unfortunate that, unlike the more fortunate National Gallery in Ottawa, the ROM cannot appeal to government for extraordinary grants for the really major pur-

chases. Despite the enthusiasm of the Curator in seeking support it is invidious always to appear in the role of the beggar.

Mr. L. Cselenyi arranged two small exhibitions of prints. One, of Piranesi Prints, is now on loan to the Smithsonian. The second was of English 17th century mezzotints. Mrs. Jean Bacso's extensive research on the Tassie portrait medallions and gem casts was in preparation for an exhibition. The Curator studied the work of the Czechoslovakian artist, Bronka Michalowska for an exhibition of her enamel work. The Director is grateful for the Curator's understanding and co-operation in allowing the Armour Court to be taken over for special exhibitions but it is most regrettable that lack of space makes this and its consequent dislocation necessary.

The staff has been actively engaged in a complete reappraisal of the collection of 19th century material which will result in a guide to the English glass and in studies of the English silver on loan from an anonymous friend, of the Museum's collection of icons and of the outstanding Book of Hours, Rouen, about 1460, generously given by Mr. Robert Laidlaw. Work has continued on the origin of the painting on the inside of the lid of our famous harpsichord and a start has been made on a catalogue of the Rembrandt prints.

Mr. Corey Keeble joined the Department in July. A specialist in arms and armour, he is now working on metal work in general. A combined effort of the Department is to re-catalogue the Lee Collection entirely. Mrs. Bacso's guide, *The Armour Court of the Royal Ontario Museum*, was published in June. The Curator was occupied in his search for material for the Baroque room and has planned two major exhibitions, one of post-Renaissance bronzes and the other of porcelain.

This Department is particularly pressed by the public for identification of objects. About one thousand requests were made this year. The Curator and Mrs. Bacso gave 33 lectures during the year for the University of Toronto Fine Arts Department, staff members appeared in three television programmes and were featured in a number of newspaper articles. It is interesting to see the way in which press and television are becoming increasingly aware of the inexhaustible resources of the museum for programmes of real interest and lasting value. The contributions of staff members to *Rotunda* and to such outside publications as the *Canadian Antiques Collector* are always popular features.

The Department wishes to thank the University of Toronto Varsity Fund, the Members' Committee and the many friends and colleagues of the late Gerard Brett who made his memorial fund a success. It enabled the Museum to purchase a fine 15th century English alabaster figure of St. Catherine of Alexandria in his memory (*Rotunda*, Summer 1970).

A number of other important acquisitions included a Queen Anne silver two-

handled covered cup, London, 1703, acquired through the offices of the Heritage Foundation, in memory of Lionel Massey, and two fine 18th century leather wall coverings (purchase), an outstanding collection of black basalt wares numbering some ninety pieces, a generous gift of Mrs. Egerton Brown, and a panelled room and fireplace from Mr. Jack Aron of New York. Altogether the department received 136 gifts.

Heribert Hickl-Szabo proudly displays armchairs and settee from the court of Louis XIV.



Far Eastern Department

Dr. Hsio-Yen Shih, *Curator*
Mrs. Barbara Stephen, *Associate Curator*
Miss D. J. Dohrenwend, *Curatorial
Assistant*
Chin-Hsiung Hsu, *Curatorial Assistant*
Miss B. Kingston, *Librarian*
Mrs. K. S. Irwin, *Junior Technician*
Miss P. Wilson, *Technical Assistant*
J. E. Vollmer, *Department Secretary*
Miss L. E. Dove, *Stenographer*



*Striking new display of tomb figurines,
Gallery 6 of the Far Eastern Department*

The Curator, Dr. Hsio-Yen Shih, recalls that Toronto's autumn cultural season was launched by an exhibition of Chinese paintings in the Far Eastern Department galleries. The Earl J. Morse Collection (New York) had previously been shown only at the Princeton University Art Museum, where Professor Wen Fong and his students, Dr. Roderick Whitfield and Mr. and Mrs. Fu Shen, compiled the excellent catalogue, *In Pursuit of Antiquity*. Uniformly well reviewed by the New York critics, the exhibition was equally appreciated by the Toronto press and, even more gratifying, by the viewing public of all ages. We are indebted to the Canada Council for granting funds to bring this collection and to provide adequate mounting for its display.

As usual, the Department also contributed objects for loan to exhibitions elsewhere – to the Asia House Gallery (New York) for "Animal Style in Nomadic Asia," and to Expo '70 (Osaka).

An innovation this year was a series of small exhibitions planned by this Department for the show-cases of the Royal Bank at 20 King Street West, Toronto. Four such displays were arranged, each of three months' duration – first of Chinese ceramic tomb figures, second of Tibetan and Nepalese objects illustrating the concerns of Lamaism, third of Ch'ing Dynasty decorative arts, and last of Chinese ceramics in general. The Royal Bank gave the ROM a most generous donation as an expression of its appreciation – a fruitful example of the collaboration between business and the Museum.

Work continued on modernizing the galleries. The world-renowned collection of Chinese tomb figurines has been re-examined and, through collaboration with the Display General Department, exhibited in more pleasing as well as educational contexts. Their qualities in ceramic techniques, as secular sculptural works and as a reflection of Chinese social mores from the 5th century B.C. through the 16th century A.D. are here emphasized. Mr. Ivan Lindsay, Chief Preparator, devised the striking hanging shelves for their cases.

A gallery devoted to later Chinese decorative arts has also been remodelled with the addition of a large new case for Chinese paintings, of which the ROM has a considerable collection long unseen.

Finally, the gallery with our large Buddha, beloved of generations of visitors, has become a Buddhist centre. A temple-like atmosphere has been created, with regular readings of sūtras in Pali,

Tibetan, Chinese and Japanese. The central area evokes a normal temple of a modest Chinese community. On either side are four cases, each displaying images from a special Buddhist sect: Tibetan Lamaism, Japanese Shingon, Mahayana at the time of Chinese conversion to Buddhism, and a Taiwanese folk cult combining Buddhism with Taoism. About the walls are hung Tibetan Tankas and Chinese religious paintings. Messrs. John Anthony and Gerald McIntosh of Display General have exerted themselves valiantly to plan these galleries, and Miss Lisl Levensohn has designed a particularly charming snuff-bottle display in the Ch'ing Dynasty gallery.

The work in our study areas has been especially fruitful this year. Miss Shih paid a brief three-week visit to India in September to study medieval sites. Upon returning and completing the mounting of our three Chinese tomb figurine galleries, she began cataloguing the Chinese paintings. Some 150 works have been fully recorded, of which 40 were selected for remounting. Again, the Canada Council has provided for such conservation work by a grant to send them to Hong Kong for the purpose. Miss Shih spent June in Japan, Taiwan and Hong Kong; the first to study collections, the second to attend an International Conference on Studies in Chinese Painting History at the National Palace Museum in Taipei as the only representative from Canada, and the last for making arrangements to remount our paintings.

Mrs. Stephen completed her study on *The Chariot in Shang China*, which is now in the process of publication as one of the ROM Occasional Paper monographs. Between December 1969 and January 1970 she participated in the British Institute of Persian Studies' excavation of the medieval seaport at Sirāf on the Persian Gulf. In addition to supervising the uncovering of a kiln site, she paid particular attention to Chinese trade ceramics discovered there, which proved to be mainly from Cantonese and Fukienese kilns. Upon her return, Mrs. Stephen began supervision of technical studies on our Chinese bronze weapons. This research project was undertaken by Mr. Bernard Leech and Mrs. Kay Allan of the ROM's Conservation Department and Dr. Ursula Martius Franklin who is Research Associate in that department as well as Associate Professor in the University of Toronto's Department of Metallurgy and Materials Science. This also has been made possible by a grant from the Canada Council. The work is preparatory to an ambitious renovation of our

Chinese Bronze galleries, scheduled for 1970-71, for which Mrs. Stephen is making preliminary plans.

Miss Dohrenwend continues her extensive studies on our Chinese jade collections, and is now progressing to research on the mineralogical qualities of these stones. She has also investigated, catalogued and devised the display of our early Chinese Buddhist sculptures in both gilt-bronze and stone.

In preparation for publication, Mr. Hsü and Miss Wilson have completed the making of rubbings and tracings from the Menzies collection of Chinese oracle-bones, as well as their cataloguing. Mr. Hsü has pieced together more than 100 large bones and shells from innumerable fragments, and made several important discoveries in the process. Two of his finds have been described in articles, written by Mr. Hsü and edited by Miss Wilson; "A New Idea for Study of the Five Rituals in Oracle-Bone Inscriptions – A Tortoise Carapace in the James M. Menzies collection of the ROM" and "The Significance of Chiselled Hollows in Periodization of Oracle-Bones".

Mr. Mino has studied and catalogued over 200 pieces of Chinese ceramics, ranging from the 6th through 13th centuries. He and Miss Wilson have produced *An Index to Chinese Kiln Sites*, divided by period, type of ware and geographic distribution, and accompanied by maps, which is now being printed. Together with Miss Dohrenwend, he planned the iron-glaze ceramics exhibit.

Mrs. Irwin and Mr. Vollmer have continued to reorganize our slide and photographic archives, as well as cataloguing over 250 objects, rearranging and supervising our study collections. Unfortunately for the Department, but happily for them, both leave us now – Mrs. Irwin to produce her first child, and Mr. Vollmer for a superior position as Curatorial Assistant in the Textiles Department to be trained as a Far Eastern textiles specialist.

This was a particularly active year for the Department in teaching. Miss Shih contributed lectures to York University's introductory course on East Asian cultures in the autumn. In the spring, she taught an advanced seminar on "Connoisseurship in Chinese Painting" at Guelph University. Two classes were conducted from the ROM – a seminar on connoisseurship in Chinese art for collectors, limited to an enrollment of twenty, was supervised by Miss Shih, Mrs. Stephen, Miss Dohrenwend and Mr. Mino, while a University of Toronto

Extension Course with more general approach was taught by them as well as Mr. Vollmer. Individual lectures to smaller groups were too numerous to be listed.

Miss Kingston has had a particularly harassing year with the Library which began with a \$14,000 deficit from purchases of last year. Happily, this has been entirely cleared; partly through the final contribution from a Gulbenkian Foundation grant whose help we greatly appreciate and hope will be forthcoming again in the future, and partly through the generosity of friends such as Mrs. George G. R. Harris, the Members' Committee, and the Junior League of Toronto. Thanks are also due to the Director for contributing his valuable time and energies to raising funds with a series of four lectures on Japanese culture. During the year, 119 pamphlets, 828 monographs and 360 volumes of periodicals were added, making the Far Eastern Department Library's holdings a total of 10,253 volumes.

The Department was also fortunate in its acquisition of objects, amplifying and improving those areas in which we have been particularly weak. They included a pair (2) of six-fold Japanese screens on the genre theme of "Rakuchu Rakugai," 19th century, gift of Mrs. Percyval Tudor-Hart; six pieces of Tibetan ceremonial jewellery and vessels, 17th-19th century; a Korean ladies' cosmetic box with dressing table top, Yi Dynasty, gift of Mrs. Norman Walden - given in memory of Mr. & Mrs. H. T. Owens; a watercolour of a Mongol Woman by Roland Strasser (1892-), gift of Mr. & Mrs. Gordon Conn; a Chinese porcelain jar, early 17th century, gift of Hsio-Yen Shih; two Japanese plates, Meiji period, gift of Hsio-Yen Shih; a terracotta Mother Goddess figurine, India, 4th-3rd century B.C.; a hanging-scroll "Landscape with Boat" by Yang Chin,

dated to 1682; a Tibetan bone flute, 19th century; a Tibetan hand drum (*damaru*), 19th century; a Camunda sculpture of red sandstone, Rajastan, 9th century; and a Sivalinga sculpture of grey sandstone, Benares, 10th century.

We thank our ex-officio department members - Mrs. D. F. Kent who faithfully provides any service for the benefit of the Department; Mrs. George G. R. Harris who gave her valuable time and strength to preparing the long-neglected Dorothy Blair Archives gift for our study files; Mrs. R. Murray Bell and Mrs. J. Beeson who keep our heads above water in mounting the steady inflow of slides and photographs; Mrs. D. Kilgour without whom Miss Kingston would have endless difficulties in the library, and all our energetic lecturers from the ROM Members' Committee who diligently present our collections to visitors (Mmes. S. O. Carter, R. Ronald, J. Fitzpatrick, W. Goldsmith, G. Kitching, W. R. Parker, W. O. Randall, J. A. Rhind, J. F. Smith, D. G. Watson, A. Zimmerman).

We had the honour of showing the collections to a number of distinguished visitors including His Excellency the Governor General and Mrs. Michener, and His Excellency Mr. Kondo, the Japanese Ambassador.

Greek and Roman Department

The gallery of Roman marble portraits was reinstalled: with individual lighting against a strikingly contrasting background the newly grouped busts now produce an effective display commensurate with the quality of the objects. Much work was done on other parts of the collection in preparation for further new displays.

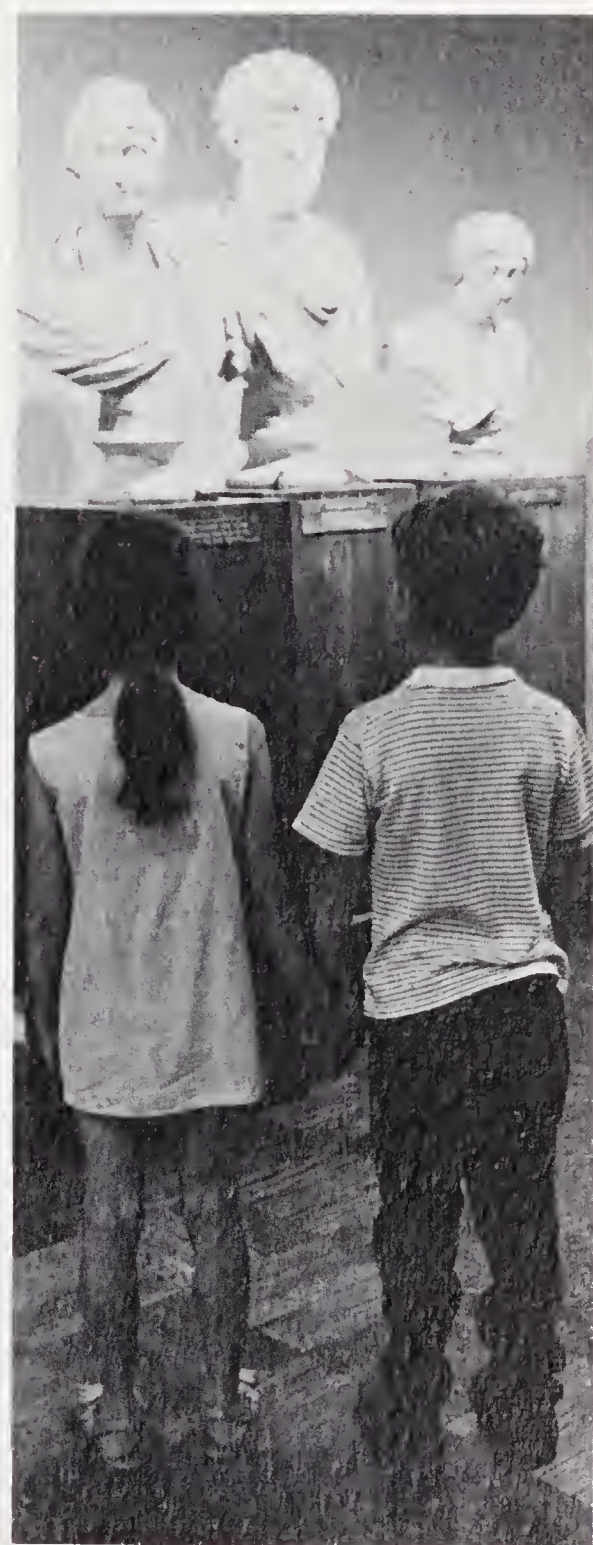
Dr. John Hayes, Assistant Curator, recatalogued the ancient glass, mostly blown glass of the Roman period, some of which is of outstanding quality. He rearranged the display to include one case illustrating glass technology. He also worked on our Roman pottery. Miss Alison Harle, Assistant Curator, catalogued the large and comprehensive collection of 'samian ware' arranging an informative display of the various types of this elegant pottery which, according to the stamps on the pots, was very popular throughout the provinces of the Roman empire. Her research has revealed that one hundred and thirty Gaulish potters are represented in the collections.

The Department welcomed a new Research Associate, Dr. J. S. Wilkinson, who is an expert on Greek coinage. He has already recatalogued most of the Museum's outstanding collection after the old display had been dismantled in preparation for a new, more informative exhibition. This is a most valuable service.

The curator completed for publication her manuscript of *Athena Parthenos*, the fruit of many years' work. She taught a course on Greek terracottas for the University of Toronto Department of Fine Art and also contributed to the Museum's new graduate Museology course. Dr. Hayes worked on the Dumbarton Oaks excavation site in Istanbul and Mrs. Leipen on the site of the ancient Agora in Athens being excavated by the American School of Classical Studies in Athens.

The collections increased by a number of purchases, gifts and bequests. Once again the Group of One Hundred Purchase Trust Fund was invaluable in that it enabled us to acquire two Greek 5th century B.C. terracottas and an 8th century B.C. geometric pyxis (see *Rotunda*, Winter 1970). The bequest of Mr. Charles S. Band included a group of elegant Roman household utensils and the late Vice-Chairman of the Board, Mr. Martin donated a truly outstanding Etruscan terracotta head of a girl dating to the Archaic period of about 500 B.C. (*Rotunda*, Spring, 1970). Two loans were made to exhibitions in the United States.

Mrs. Neda Leipen, *Curator*
Miss A. C. Harle, *Assistant Curator*
Dr. J. W. Hayes, *Assistant Curator*
Dr. J. S. Wilkinson, *Research Associate*
Dr. J. Walter Graham,
Research Associate
Mrs. Jane McCormick,
Department Secretary



Two young friends admire Roman marble portraits. Courtesy The Toronto Telegram

Department of Philately

Douglas Patrick, *Honorary Curator*

Mr. Douglas Patrick has continued to serve the Museum for yet another year as Honorary Curator of our Philately collections. This is a field which attracts a specialized but large audience and the Museum is immensely grateful for his willing services. At the moment it is impossible to give stamps the setting we should and would like to give them. This inevitably deprives the Museum and hence the public of many gifts. However, the Museum has always something of interest on show for the stamp collector.

Mr. Patrick reports that the most important event in the year occurred in December when Mr. W. H. A. Thorburn, a ROM member, donated an excellent series of Canadian stamps issued prior to 1900. These will be added to the stamp collection which is now updated to January 1970.

The loan exhibits continued in variety and interest. The July, 1969 feature consisted of a pot pourri of *Historical Envelopes* (covers). The Honourable Allan Grossman kindly lent a novelty collection of *Canadian floral stamps* autographed by the provincial premiers.

A display of 48 pages of *Canadian makeshift stamps* called "provisionals," and another *Canadian special delivery* exhibit of a specialized nature offered a representative cross section of this aspect of Canadian stamps.

Zeppelin Mail formed one exhibit. These were all letters carried on the German aircraft from 1908 to mid 1930-35 period. *The Story of Italy* in postage stamps of the Italian states and the Kingdom of Italy was the last loan exhibit in the period.

Mr. Patrick explains most of these displays in his well-known stamp articles in the *Globe & Mail* and he gave three talks on "Assignment Stamps" on his Saturday morning Trans-Canada radio show.

A gown of painted and dyed cotton, c. 1770, as displayed in the exhibition, The Origins of Chintz. ROM 959.80 a and b



Textiles Department

For the Textiles Department, the Curator, Mr. H. B. Burnham, reports a year of achievement, growth, and progress with two major special exhibitions, an important catalogue raisonné, and extensive additions to the collections.

Craft Dimensions Canada was opened in September, 1969, by the Secretary of State, the Honourable Gerard Pelletier. It had been assembled by the Canadian Guild of Crafts (Ontario), and turned over to the Museum after jurying had been completed. On the upper floor of Exhibition Hall, a complementary display drawn from material in the Museum, and in private collections in Toronto, showed the quality of craftsmanship characteristic of Canadian work of the 17th to 19th centuries. Mr. Burnham who was responsible for the exhibition prepared a catalogue dealing with the modern juried part of the show.

The catalogue raisonné, *Origins of Chintz*, was the joint work of Mrs. Brett and of Mr. John Irwin, Keeper of the Indian Section, Victoria and Albert Museum, London, and supported by the Canada Council. It is a major contribution to knowledge that will prove invaluable to all who are interested in these superb painted and dyed cottons made in India in the 18th century. It includes detailed descriptions of the examples in the Victoria and Albert Museum, and the Royal Ontario Museum, the two outstanding collections of this material in the world. The preparation of the book entailed several years of close collaboration, and publication coincided with the opening of the second major exhibition in April, 1970, *The Origins of Chintz*. With the help of the Display Department it was beautifully shown in the Armour Court. Entirely planned and organized by Mrs. Brett, it was most suitably opened by Mr. Irwin. After closing in Toronto at the end of May, the exhibition moved

on to the Cooper-Hewitt Museum in New York.

Changes were made in the Textiles Department galleries on the Second Floor. In the costume gallery, the regular rotation of the display was continued as normal, with special emphasis on new acquisitions. In the Ontario Gallery, after repainting, a special display was put out for the summer of work of professional weavers in Ontario who used jacquard looms for weaving coverlets. The Small Gallery was completely refurbished and the dresses worn by Queen Alexandra, Queen Mary, and Her Majesty the Queen Mother are now shown together. This is proving a most popular display.

A new policy has been instituted for the Textiles Gallery. Short term special exhibitions emphasizing specific aspects of the collections will be held regularly, and changed every two or three months. The first of these, showing French and English woodblock-printed cottons, was arranged by Mrs. Brett to coincide with the chintz exhibition to which such material is related. The second, arranged by Mrs. Burnham for the summer of 1970, shows a selection of quilts drawn from the collections, many of which it has been impossible to show before.

In the autumn of 1969, Mr. Burnham attended the meetings of Centre International d'Etude des Textiles Anciens in Tarassa, Spain, where he gave a paper on "The Royal Ontario Museum and its Textile Collections" and in the spring of 1970, he visited Switzerland to help with the final details of the German version of the international textile vocabulary being prepared for CIETA by Abegg Stiftung, Riggisberg. While there he also studied examples of Swiss textiles that may have influenced Canadian work found in the Mennonite communities of Ontario.

H. B. Burnham, *Curator*
Mrs. K. B. Brett, *Associate Curator*
Dr. Veronika Gervers,
Curatorial Assistant
J. E. Vollmer, *Curatorial Assistant*
Mrs. D. K. Burnham,
Research Assistant (P/T)
Mrs. Charlotte Zuppinger, *Technician*
Mrs. J. Cselenyi, *Junior Technician*
Mrs. Mary Holford,
Occasional Lecturer
Mrs. Nora Priverts,
Department Secretary

The major efforts of both Mr. and Mrs. Burnham throughout the year were spent on the preparation of the text of a major publication on early Canadian textiles which is to be brought out in conjunction with the special exhibition "*Keep Me Warm One Night: Handweaving in Early Canada*" to be held in September, 1971.

Mrs. Brett completed the cataloguing of The Harry Wearne Collection, from which most of the Museum's chintzes for the exhibition were drawn, and began the groundwork for a catalogue of the Museum's fine collection of French woodblock-printed cottons of the 18th century.

Dr. Gervers, in addition to regular duties, worked throughout the year on her detailed study of the Amice Calverley Collection of folk textiles from Roumania and Hungary, with a view to publication of a catalogue of this unusual collection. In September, 1969, she attended the 22nd Congress of the History of Art in Budapest, and delivered a paper on "Romanesque Round Churches in Hungary."

Mr. John Vollmer, formerly with the Far Eastern Department, joined the staff of the Textile Department as Curatorial Assistant, to specialize in Far Eastern textiles. Working with Mr. Burnham, plans have already begun for the major exhibition of Chinese textiles scheduled for March, 1973.

Mrs. Zuppinger continued her work in preparing textiles for exhibition, particularly the mounting of some 25 of the large palampores that were included in the exhibition of chintz. These had previously been washed by Mr. Burnham. Regrettably, the essential cleaning and washing of material in the collections has come to a halt since we have no facilities of any kind for this work and

the Museum is too overcrowded to find space for them.

Mrs. Holford gave a course for the students of Ryerson Institute of Technology (Dress Design). Other lectures were given by her, Mrs. Brett, and Mr. Burnham for Seneca College (Dress Design), Centennial College (History of Costume), the University of Guelph (Household Science), and the University of Toronto (Fine Arts Department).

A fact accepted by all working with historic textiles is that there is no place that one may obtain the essential knowledge and training required except by working with the material in a museum collection. To fill a vacancy in the curatorial staff of a Textile Department it is necessary to accept those qualified in related fields, but who have an interest in this specific branch of learning. To help those members of the Museum staff who desired the specialized knowledge available in no other way, a series of evening seminars was given by Mr. and Mrs. Burnham in the Textile Study Room.

The growth of the collections during the past year has been most gratifying to all interested in the welfare of the Museum. Much of value and importance has been received as gifts from a host of generous donors. The availability of greater purchase funds made it possible to acquire objects appearing on the market. Little textile material earlier than the 18th century is now available, and it is essential that we build as rounded a collection as possible before it is too late. In doing so, the future importance of the later periods must not be forgotten, and steps have already been taken in this regard.

The generous help and constant interest of our major donor, Mrs. Edgar J. Stone, enabled the Department to continue to improve the quality and scope of the collections. Her gifts included an important pair of English walnut chairs with original "turkey work" upholstery of the third quarter of the 17th century, a pair of finely embroidered chair seats, also English, of the beginning of the 18th century, and a man's sash of fine blue cotton lavishly embroidered with gold foil, a superb example of 18th century craftsmanship for the Moghul court. She also gave a collection of Spanish silks and folk textiles dating from the 16th to the early 19th centuries. These, added to the other examples from Spain which she had given previously, have given us a rounded collection of good quality that has filled a gap in the collections. Later in the year, she and Mr. Stone presented

an English embroidered bed cover dated 1728, a charming piece probably worked by a young girl. This was given in memory of the late Gerard Brett, M.C., M.A., for some years Director of the Royal Ontario Museum of Archaeology.

Further additions were made to The Silverman Collection of 20th century costume by Mrs. Saul A. Silverman. Dresses by Paris designers were received as gifts from Mrs. Graham Morrow, Mrs. W. J. McCormick, and Mrs. Noah Torno. Mr. Morris Gay gave examples of contemporary men's costume. An outstanding dress designed by Charles Worth of Paris about 1890 was acquired by purchase, as was an English man's embroidered suit of about 1780. Other items of Chinese costume were given by Mr. and Mrs. Gordon Conn, and Mrs. Percyval Tudor-Hart.

We received our first three examples of early Near Eastern silks of the 7th and 8th centuries as a gift of Mrs. Gerard Brett. A number of 18th century silks were obtained by purchase, some woven in France and England, others painted in China for the export market. The collection of European linen damasks of the 17th century and later has expanded through gifts from Miss Elizabeth Acland Allen, Mrs. Walter Zuppinger, Mrs. J. Cselenyi, and by purchase. The representation of shawls that were fashionable during the 19th century has improved, both those made in India and those made in the Paisley district of Southwest Scotland. Two large embroideries from the Near East have helped to round out this collection.

Much has been added to the collection of Victorian jewellery in which the Director has a special interest. The growth of this collection has been made possible by the income from the Purchase Trust Fund he established and reinforced with gifts from Mrs. W. D. Cosser and Mr. J. H. Crang. A successful showing of some of these fine objects was arranged by the Display Department in the main rotunda in the spring of 1970.

It has always been the policy of the Department to accept fine examples of modern textiles whenever they have been offered, but this year a change in policy was made to improve the quality of the representation of 20th century fabrics by the purchase of two groups of material. One was of examples of drapery fabrics designed for the Edinburgh Weavers of Carlisle, England, and produced by them in the 1960s. The other was a collection of documented silks woven by the firm of Tassinari et Chatel

in Lyon. This firm, founded in 1762, has long been famous for the quality of its work, and we are indeed fortunate in acquiring these specimens. They date from 1905 to 1965, and include panels of "The Four Elements," designed by Mlle. Clarindal, and made for *L'Exposition de l'Art Moderne* held in Paris in 1925.

The collections of Canadian material continued to expand, and a number of gaps were filled both by gift and by purchase. Important additions were also made to the representation of costume worn in Canada. Coverlets, quilts, and costume were given by Mrs. C. D. McPherson, Mr. Hart Massey, Mr. and Mrs. Harold B. Burnham, Mrs. R. L. McFeeters, Mr. George J. A. Reany, Mr. and Mrs. John E. Langdon, and Mrs. P. C. Band. An outstanding addition to this field was made possible by a generous donation from Mrs. John David Eaton. Thanks to this gift, it was possible to obtain a representative collection of coverlets, quilts, blankets and hooked rugs made in Quebec in the 19th century. By this one act, we now have a fine representation of work from this province, including several of the finest pieces known to have survived.

West Asian Department

Dr. T. C. Young, Jr., *Curator*
 Dr. L. B. Golombek, *Assistant Curator*
 Dr. L. D. Levine, *Assistant Curator*
 Dr. J. S. Holladay, *Research Associate*
 Dr. H. B. Schroeder, *Research Associate*
 Murray Hadaway, *Technician*
 Peter Mitchell, *Junior Technician*
 Miss Deborah Damant, *Stenographer*

The Curator, Dr. T. Cuyler Young Jr., reports with satisfaction that this has been a normal but very busy year for the West Asian Department which seems to have settled into a steady routine and a productive rhythm.

One of the high points of the year was the opening of the new Islamic Gallery in expanded space on the third floor (see illustration) for which we must acknowledge the generous sacrifice of space by the Far Eastern Department. Dr. Golombek was mainly responsible within the Department for this project and worked long and hard to bring it to completion. The end result would have been impossible without the close co-op-

The new Islamic Gallery



eration and important contribution of Display General and the willing help of the Preparators and Carpenters. It was our collective pleasure to host the meetings of the Middle East Studies Association at a cocktail party on the occasion of the opening of the new gallery and to receive many compliments on the display from distinguished scholars in the field of Islamic Studies. Our small but important Islamic collection is here presented in a manner which we hope will give added pleasure to the increasing numbers of the public who come to view it.

Primarily because this was a year for excavation in the field, it was also a good year for acquisitions. However, on the open market we continue generally to be out-bid and out-priced.

Nevertheless, the Department did acquire at auction two fine 15th century Persian miniatures, one 16th century Turkish miniature and a 12th century bronze oil lamp. An important and sizable group of excavated objects, mainly pottery and other small finds, came to the collection as a result of Dr. Tushingham's participation in the excavation at Dhiban in Jordan. The 1969 excavations at Godin Tepe in western Iran were particularly productive. Special attention should be drawn to the very large quantity of animal bone in the collections. As a result of the excavations at Godin the ROM now has the largest collection of comparative animal bone dating to the second millennium B.C. from Iran if not from the whole of West Asia. These materials are of vital importance to archaeologist and zoologist alike.

Mr. Peter Mitchell, a trained potter, has joined our staff as Junior Technician. Through the co-operation of the Conservation Department he underwent several weeks of training in pottery mending and restoration. Thus we have been able to move rapidly forward with a major programme of refurbishing the ceramic collections and preparing newly excavated material for publication and display, all on a sound professional basis.

A third season of large-scale excavations at Godin Tepe in Iran lasted from June to September 1969. Detailed information on the results of this work will be found in *Rotunda*, Winter and Spring, 1970. It is sufficient to record here that it was a most successful season. Once again thanks for financial support are due to the ROM, the Harvie Foundation, Calgary, the Babylonian Collection of Yale University, and the Ford Foundation. The last of these generous patrons provides a grant to finance training in

the field of graduate students of Near Eastern Archaeology.

Dr. J. H. McAndrews of the Geology Department joined the expedition in Iran for about ten days in order to make a preliminary survey of the possibilities for fossil pollen research in the area. This research would be of interest to both paleoclimatologists and archaeologists. Prospects are good for continued co-operation along these lines.

The Department recently entered into an agreement with the Smithsonian Institution in Washington, D.C., covering a long-term research project on possible causes of contamination of archaeological radiocarbon samples based on the fine stratified sequence of samples being collected at Godin Tepe.

Dr. Golombek's publication on the architecture of Turbat-i Shaykh Jam, mentioned in last year's report, is still in preparation for it has grown into a major research effort. Dr. Levine will soon bring to press a definitive edition and presentation of the important inscribed Neo-Assyrian Stele of King Sargon II found by the Museum's Iran Project in 1965, as well as a stele of Tiglath-Pileser III also said to be from western Iran. Dr. Young, in joint authorship with Dr. Philip E. L. Smith of the University of Montreal, has recently completed an extended publication on the evolution of early agriculture and culture in Greater Mesopotamia between late Pleistocene times and the beginnings of the Urban Revolution c. 3500 B.C. This approaches the subject from a point of view based on population growth and pressure as the independent variable behind the early history of agriculture.

Again this year, all members of the department were active in formal teaching at the University of Toronto. Dr. Golombek gave a *Survey of Islamic Art* and Dr. Levine taught a graduate seminar in *Mesopotamian Archaeology*; two undergraduate courses, *the Art and Architecture of the Ancient Near East* (with Miss Needler of the Egyptian Department) and *Introductory Modern Hebrew* (in the University Extension Programme); and a graduate reading course in the *Archaeology of Anatolia* (with Dr. Young). He also gave occasional lectures in the Near East Department's first year course, *The Ancient Near East*.

Dr. Young taught a graduate course entitled *Introduction to the Archaeology of Mesopotamia, Anatolia, and Iran*: an undergraduate course *The Prehistory of the Near East*; a graduate reading course

on Anatolia (with Dr. Levine); and contributed occasional lectures in the Near Eastern Department's introductory undergraduate course.

Extra departmental activities within the Museum and activities outside our own walls once again added greatly to the impact of the department in the Museum, in Toronto, in Canada and in the general world of Near Eastern scholarship. All members of the staff gave an unprecedented number of lectures both popular and scholarly, appeared on radio and television programmes and attended learned society meetings.

Office of the Chief Biologist

Dr. L. S. Russell, *Chief Biologist*
Miss A. B. M. Liebeck, *Sec'y to
Chief Biologist*
Mrs. S. Poray-Swinarski,
Artist-Craftsman (P/T)

The Chief Biologist, Dr. L. S. Russell, reports that he continued his research on the history and relationships of the early and primitive mammals. He examined fossil-bearing formations of Cretaceous age in Alberta, and of Paleocene and Miocene age in Saskatchewan which work was supported in part by a grant from the National Research Council of Canada. Some of the stratigraphical findings will appear in a paper on Cretaceous correlation between Alberta and Montana. The monograph on the Oligocene mammals of Saskatchewan has required further revision due to the acquisition of new material, but the first of two parts is almost ready for publication. A large collection of Cretaceous mammals from Bug Creek, Montana, was studied, and the more interesting specimens reproduced as greatly enlarged models. This led to an enquiry into relationships of the Insectivora, the results of which will be prepared for publication.

During the academic year, Dr. Russell taught vertebrate palaeontology in the Department of Geology, University of Toronto. He gave one undergraduate course and one graduate seminar, supervised three graduate students' theses in whole or part. Of the three graduate students, John E. Storer completed his third and final year of graduate work at the ROM under the direction of Dr. Russell and Dr. C. S. Churcher resulting in a Ph.D. thesis on the Miocene mammalian fauna of Saskatchewan. Desk space and laboratory facilities for him as well as for the other two graduate students were generously provided by the Department of Vertebrate Palaeontology. Storer's work culminated in his appointment to the position of Curator of Palaeontology at the Provincial Museum and Archives of Alberta.

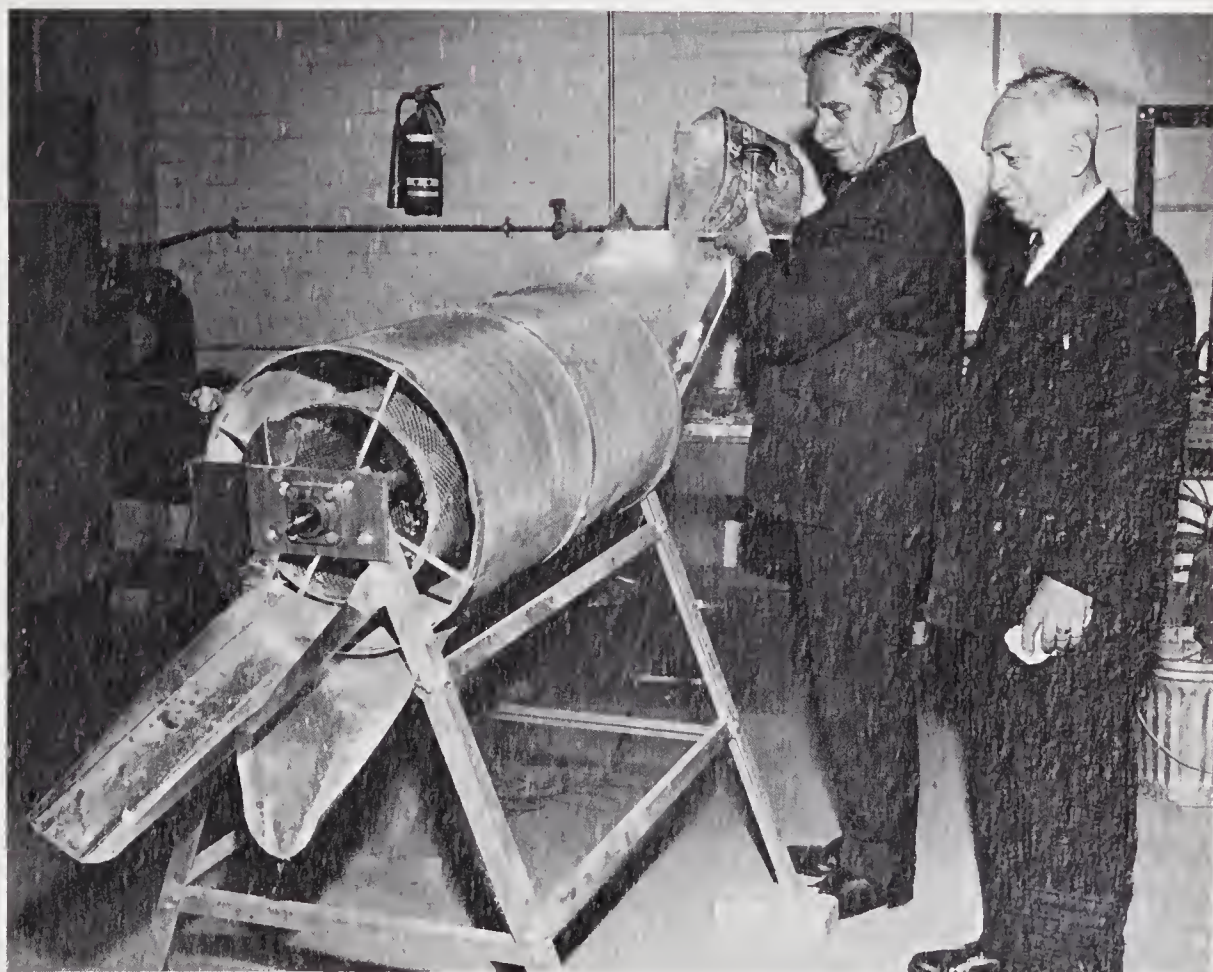
Dr. Russell gave three lectures in the newly established graduate course in

Museology, a field in which he has great interest and experience. He represented the ROM at the Conference of Directors of Systematic Collections at the University of Colorado, presented a report at the Annual Meeting of the Society of Vertebrate Paleontology in New York and attended the meetings of the American Association for the Advancement of Science in Boston.

In addition to his teaching in palaeontology, Dr. Russell is frequently called upon to speak on his extramural interest, the history of domestic lighting. During 1969-70 he lectured on this subject at Welland, Ontario, Montreal, Quebec, Saint John, New Brunswick, and to a seminar in architecture at Columbia University, New York.

Dr Russell was accepted into the permanent rank and file of the University establishment by being created Professor Emeritus of Geology, effective July 1970 – a lifetime privilege and a well-deserved recognition of his services.

The Chief Biologist demonstrates a sieve for separating sand, gravel, small bones and miniscule fossils



Office of the Chief Mineralogist

Dr. V. B. Meen, *Chief Mineralogist*
G. G. Waite, *Research Associate*
E. B. Tiffany, *Research Associate*
Mrs. M. L. Scheffel,
Secretary to Chief Mineralogist

The Chief Mineralogist, Dr. V. B. Meen, continued his curatorship of the Museum's gem collection of which he claims we can now justly be proud. Until the mid 1950s, this collection consisted of a few dozen gemstones which illustrated the various species and varieties of gems but, because of their small size, did little to attract public or professional attention. How different the situation is today! In 1956 a programme to build up the gem collection was launched and, thanks to many supporters, this has continued with surprising and most encouraging success. Gems are scarce and costly yet, with a relatively small annual budget and with the help of a few friends of the Museum, our gem collection is now a source of education and delight to countless visitors and also attracts the attention of professionals.

The finest acquisition, during the year under review, was the gift of Mrs. Edgar J. Stone, noted for her many benefactions not only in this but also in other areas of the Museum. It is a magnificent blue star-sapphire, from Ceylon, weighing 174.75 carats. It had been loaned for exhibition for some time and we are delighted to incorporate it into the permanent collections. The acquisition of a faceted gold sapphire of 32.79 carats, also from Ceylon, was made possible through the generous financial assistance of a number of members of the Museum Board. Mr. G. G. Waite, Research Associate, presented a fine blue topaz from Texas of 117.65 carats which he had himself faceted from the rough. Two cut slabs of nephrite jade, weighing 367 and 43 pounds, from the new discovery of excellent nephrite on Ogden Mountain in northern British Columbia, were presented by the Kuan-Yin Jade Industries Limited "In recognition of the assistance and advice given the Company by Dr. V. B. Meen, Chief Mineralogist of the Royal Ontario Museum during his visit to the Company's property in September of 1969." A polished 46.6 carat lump of Australian chrysoprase was the gift of Mr. Norman L. Smith, Kalgoorlie, Western Australia. About two dozen other gemstones were added to the collection through purchase. Mr. G. G. Waite, Research Associate, collaborated in the study of all the gem acquisitions and pursued his own studies of Mexican opal, publishing one paper.

The other aspects of the work of this office and its laboratory deserve mention. Through his success in building up the gem collection and his work on the Crown Jewels of Iran, Dr. Meen has become recognized as an authority on gems. As a result, many individuals and organizations consult the Museum on

gems and gem deposits. The advice given to the jade company helped it and thereby also Canada and it resulted in a welcome *quid pro quo* addition to the Museum's gem collection. The other aspect concerns Dr. Meen's interest in gem deposits. In 1960, he began a programme of personal site studies of the world's major gem deposits. By the end of 1964 he had studied most of the deposits in South-east Asia, India, and Ceylon. At that time his work was interrupted by the opportunity to examine and catalogue the Crown Jewels of Iran. On the completion of that project, the publication of the results and the supplying of copies of all data to the Iranian authorities he intended to take up once more the study of world gem deposits. A number of interruptions prevented this but nevertheless he was able to study many of the gem deposits in the San Diego, California area, some of the more newly discovered gem deposits of Baja California, Mexico, two turquoise mines near Tonopah, Nevada, a new opal mine in south-east Idaho, and the long famous occurrences of blue sapphire at Yugo Gulch, Montana, and of diamonds at Murfreesboro, Arkansas.

The Chief Mineralogist is responsible also for the meteorite collection. Meteorites are very rare, unpredictable in occurrence and specimens useful to the collection are rarely offered for sale. However, the Museum was able to purchase ten pieces, weighing ten pounds, of the newly fallen and rare type Allende, Mexico meteorite. In addition, nine tektites, whose relationship to meteorites is not fully understood, were presented by an Australian visitor, Mr. Norman L. Smith, who had collected them there. The public bring many suspected meteorites for identification but, alack, almost invariably they turn out to be furnace clinkers!

During the year the Chief Mineralogist addressed a number of organizations and published three papers on gems and gem deposits. He continued as Canadian representative on the Meteorite Commission of the International Union of Geological Sciences, a member of the Associate Committee on Meteorites of the National Research Council, a member of Council of the Mineralogical Association of Canada, and an Honorary Director of the Canadian Gemmological Association. He is a member of the national group preparing an excursion to the classic mineral occurrences of eastern Ontario and Quebec in connection with the 1972 meetings in Canada of the International Geological Congress.



Diamond-drill sampling of multi-ton jade boulder on the side of Ogden Mountain, B.C.

The Department of Entomology in the field—on the Continental Divide, Montana



Entomology and Invertebrate Zoology

Dr. G. B. Wiggins, *Curator*
 Dr. David Barr, *Assistant Curator*
 Toshio Yamamoto, *Curatorial Assistant*
 T. W. Beak, *Research Associate*
 Dr. R. O. Brinkhurst,
Research Associate
 Dr. D. W. Crocker, *Research Associate*
 Dr. F. P. Ide, *Research Associate*
 Rev. J. C. E. Riotte, *Research Associate*
 Anker Odum, *Scientific Illustrator*
 Miss A. E. Hillmer, *Department
 Secretary*

This has been a most satisfactory year according to the Curator, Dr. Glenn B. Wiggins. The Museum now enjoys a more progressive environment and financial support from sources outside the Museum has given the Department excellent facilities for field work. This has led to the initiation of a new series of intensive field programmes across the provinces of Canada. New equipment has at last made even the crowded study areas as pleasant for work as is possible within their confined quarters.

Collecting expeditions covered 15,000 miles between May and August 1969 and included 370 sites in British Columbia, Washington and Montana. 35,000 individual specimens were collected, ranging from water-mites the size of a pin-head to giant silk-worm moths with a 6-inch wing span. In view of the mounting decimation of the natural fauna brought about by environmental degradation, the Department's field programme to build documented collections for research on the Canadian invertebrate fauna assumes even greater significance. Because of a new method developed for the recording of field data, the material will also be invaluable for future ecological studies. Space for this work is restricted but in the national interest it must go ahead.

The Curator's main concern has been his magnum opus *Larvae of the North America Caddisfly Genera*. This book will be the product of ten years of field work, and a long-needed reference work for specialists in the field on the continent. It will incorporate much new material and will be a major contribution to biological knowledge.

Our Research Associate, the Rev. J. C. E. Riotte, continued the Department's research project on Lepidoptera (butterflies and moths). Much new material was acquired through his summer's field work in eastern Ontario. He made progress in

his work on the Museum's collections, published two papers, completed two and is working on another two.

Dr. D. Barr prepared his Doctoral thesis on water-mites for publication in the Museum series. Supported by a grant from the Department of University Affairs, he initiated a project on the immature stages of water-mites – which also involved starting a large scale rearing programme in the laboratory. Altogether 14,000 specimens of water-mites were added to the collection.

A new venture in publications started this year with the appearance of *The Water-Striders of Ontario* by Drs. Lanna Cheng and C. H. Fernando. This is the first of what we hope will be a series of guides to groups of the invertebrate fauna of Ontario. We believe that a growing demand for this type of publication will develop as more detailed biological work, particularly on the fresh-water fauna, is undertaken by government agencies and as more university and high-school classes turn their attention to the outdoor environment and the need for its preservation.

The Department's growing reputation brought a flood of material for identification, a constant traffic in loans and a welcome flow of visiting students. Some 700 inquiries from the public, industries and various government institutions were answered – an important if unseen aspect of many Museum Departments.

The staff have been active in lecturing to groups both within and outside the Museum. Inaugurated was an important series of seven public lectures entitled *Invertebrates – Man's Unseen Associates* – an introduction into seeing and understanding the enormously diverse array of invertebrate animals surrounding man. Its success reinforces our belief in the serious and important role the Museum can play in adult education at a mature

level. Dr. Wiggins was also involved in other lecturing and teaching.

The Department welcomed as new Research Associate, Professor F. P. Ide, whose main interest is mayflies and other groups of aquatic insects. He generously gave the Museum his important collection of nearly 10,000 specimens and a large part of his valuable reprint library. Mr. T. Yamamoto, Curatorial Assistant, took charge of operating the major field expedition and assumed many other responsibilities which freed the Curator for several overall Museum commitments such as the implementation of the N.C.R. Development Grant in systematic zoology. He is also assisting Dr. Wiggins in several research projects.

Once again we are forced to point out that this department has no galleries whatsoever in which to interpret the 90% of the animal world for which it is responsible. The loss to the public of a whole world of interest and importance is only too regrettable.

Department of Geology

Dr. W. M. Tovell, *Curator*
 Dr. J. H. McAndrews, *Associate Curator*
 Dr. G. Norris, *Research Associate*
 Prof. P. A. Peach, *Research Associate*
 Mrs. J. L. Charing, *Senior Technician*
 Peter Tewiss, *Preparator*
 Mrs. D. Siddiqi, *Junior Technician*
 Miss G. R. Marshall, *Department Secretary*
 Miss J. L. Kelly, *Stenographer*



Dr. W. M. Tovell gazes at a sample of rock from the moon

LIBRARY
 ROYAL ONTARIO MUSEUM

Dr. W. M. Tovell reports a great improvement in the physical conditions of the Department of Geology – new painting, laboratory reconstruction, new furniture and new cabinets for the storage of the petrographic collection. However, the available floor space has now all been utilized and the Department has reached its maximum capacity.

The Curator's main activities were in teacher-training for Earth Science courses primarily at high school level. This work included conducting a course for the University of Toronto, College of Education. He also served as a consultant to government. In research he worked on the synthesis of the geological history of Georgian Bay, in association with Dr. C. F. M. Lewis of the Geological Survey of Canada. During a three-day exhibit arranged by the Curator with the co-operation of Dr. David Strangway, Department of Physics, University of Toronto, 11,000 people saw a specimen of moon rock. The Curator also played a major role in organizing the E.T.V. series of nine programmes on Geology produced by the Ontario government. This is an area in which the Museum will increasingly be involved but unfortunately as yet it does not enjoy the means to play the role for which its vast resources fit it.

It is gratifying to see recognition for the Department's work from outside sources – the Federal Department of Energy, Mines and Resources (pollen stratigraphy of the Great Lakes), The Quetico Foundation (small lakes in Southern Ontario), the National Research Council, the Department of University Affairs. The Canadian Geological Foundation generously made a grant of \$25,000 to the Department, and the interest from this most welcome fund will support research projects. It would be a most desirable situation if each Department could depend upon such help.

Geological field expeditions for members of the Royal Ontario Museum were initiated by the Curator. This year's expedition, attended by 49 individuals, was to the Niagara Gorge.

Dr. J. H. McAndrews moved into slightly larger and better quarters in which he continued his work on fossil pollens and seeds. He taught Floristic Plant Geography for the U. of T. Graduate School and guided, and took part in, the E.T.V. show "Grains of Time." An illustration of how a foreign site being used mainly by one department can also serve other disciplines was his ten days at our archaeological site at Godin Tepe in Iran where he collected pollen and living plants together with a severe case of jaundice! Conferences, papers, public lectures, field trips to specialist and non-specialist groups, the publication of three papers, with another in the press, two manuscripts completed and three in preparation, completed a busy year's work. Unfortunately the production of scholarly papers is out-running the Museum's financial ability to produce them – a most regrettable situation.



The underwater laboratory, Sublimnos, being mounted on display outside the Museum entrance

Department of Ichthyology and Herpetology

Dr. W. B. Scott, *Curator*
 Dr. E. J. Crossman, *Curator*
 Dr. A. R. Emery, *Research Associate*
 Dr. J. B. MacInnis, *Research Associate*
 Mrs. Isobel Radforth, *Research Associate*
 Mrs. M. G. Scott, *Research Assistant (P/T)*
 Peter Buerschaper, *Senior Technician*
 E. Smith, *Junior Technician*
 Mrs. Monica Hunter, *Department Secretary*
 Miss K. Ribbans, *Stenographer*

Dr. W. B. Scott, Curator, reports that this has been the heaviest year since he joined the Museum and, in a mood of pessimism, doubts the ability of the Department to maintain the pace. Many events conspired against their completing the manuscript of the Department's magnum opus, *The Freshwater Fishes of Canada*, not the least annoying being the frequent interruptions to the power caused by the installation of new electrical wiring. This study will comprise a comprehensive text with distribution maps, colour and black and white illustrations and biological accounts of each species. Already the manuscript has reached 1,200 pages. As part of this project the Curator worked in the British Museum, the Marine Laboratory at Plymouth, and the Marine Biological Laboratory at Aberdeen. The first of these institutions holds many of the holotype specimens for species occurring in Canada. Dr. Scott also produced two research papers on Atlantic fishes while R. E. Zurbrigg and Mrs. N. W. Radforth continued their research work on Atlantic Lanternfishes – work supported by the National Research Council. Its support enabled two graduate students (Zurbrigg and Beamish) to participate in the cruise of the *Hudson 70* into the South Atlantic Ocean – yielding a fine collection of deep sea fishes, 1000 feet of colour film and some unique publicity.

Dr. E. J. Crossman, Curator, in addition to the major work, continued his studies on the Ichthyofauna of Quetico Provincial Park (supported by The Quetico Foundation and the Ontario Department of Lands and Forests), the biology and systematics of esocoid fishes (supported by the National Research Council) and an impressive number of other learned papers.

Dr. A. R. Emery participated in a field trip to the Palau Islands (north of New Guinea) and obtained a fine collection

of fishes – a continuation of his work on tropical reef fishes. He is a world authority on the group of damselfishes.

The collections have grown at such a rapid pace that to keep up with cataloguing has become a problem – approximately 30,000 specimens were documented this year. The area available to display the work of this Department is so totally inadequate that a vast amount of research of greatest interest is denied to the public. But temporary shows were mounted of the undersea life off Bahama Island featuring the magnificent underwater photographs of the Benjamins, father and son, of Benjamin Photo Laboratories, Toronto.

In addition, the teaching must go on. Dr. Scott conducted a graduate course for 10 graduate students from the Universities of Toronto and York, supervised graduate programmes, served on advisory and examining committees, as outside examiner, and also gave two hours to the Museology programme. Dr. Crossman presented a portion of a new zoology course in the University of Toronto, supervised graduate programmes, and served on graduate examining committees. Both curators gave lectures of a more popular nature and spent one whole week filming in the department for E.T.V. It was particularly disappointing that the ROM received neither credit on the screen nor in the promotional material – a lack of courtesy or recognition which Dr. Scott reports makes him unwilling to participate again.

The basement quarters of the Department, shocking for such valuable work, are now virtually used up – only a little wall-space remains to be utilized. Yet the calls on the Department continually grow – for loans and gifts, identification for individuals and institutions, consultations with Government departments, space and services to visiting scientists.

The Federal Government even called upon the Department for advice and technical assistance in the shipping of wild goldfish to Expo 70 in Japan! But many institutions added to our collections; the Ontario Department of Lands and Forests, Water Resources Commission, Quebec Department of Fish and Game, Canada Department of Fisheries and Forestry, Canada Land Inventory, Fisheries Research Board of Canada, Department of Energy, Mines and Resources, National Museum of Canada, Saskatchewan Fisheries Laboratory, Saskatoon, New Brunswick Museum, Nova Scotia Museum of Science, Queen's University, University of British Columbia, University of Toronto, Dalhousie University, Acadia University, U.S. Bureau of Commercial Fisheries, California Academy of Sciences, Bishops Museum, Hawaii, Illinois Natural History Survey. To these, the Museum is grateful and in return they received identification services – a two-way street which is the life blood of scientific research. Twelve institutions received loans.

The Director is particularly grateful for Dr. Scott's experience and advice on the Liaison Committee established to formulate and pass on to him the views and aspirations of the Science curators on many matters. One wonders how long this Department can withstand its space restrictions and frustrations. It provides unique services to the Province and the country in Victorian conditions which no elementary school staff would tolerate.

Department of Invertebrate Palaeontology

Dr. D. H. Collins, *Curator*
John Monteith, *Curatorial Assistant*
Dr. C. R. Barnes, *Research Associate*
Prof. Madeleine Fritz, *Research Associate*
Dr. A. Brinckmann-Voss, *Research*
Dr. J. B. Waterhouse, *Research Associate*
Dr. Gerd Westermann, *Research Associate*
Mrs. C. Johnston, *Technician I*
Huibert Sabelis, *Technician I*
Miss J. M. Burke, *Department Secretary*

The Curator, Dr. D. H. Collins, reports that the consolidation of the Department begun last year proceeded steadily. Mr. John Monteith continued reorganising the research collections and identifying the many specimens brought in by the public. Mr. Huibert Sabelis was able finally to establish the gallery and life support marine invertebrate aquaria, the most popular feature of the gallery. Unfortunately the audio-visual aids are still largely unsatisfactory and the over-worked Display Department is, at present, unable to devote sufficient time to this and other gallery renovation needs.

As in previous years, lack of space for storage, display, offices and laboratories makes it impossible to build for the future reasonably comprehensive collections and to display them adequately for the public and students. It is most depressing to report that these inadequacies make it impossible to maintain the impetus so promisingly begun this year.

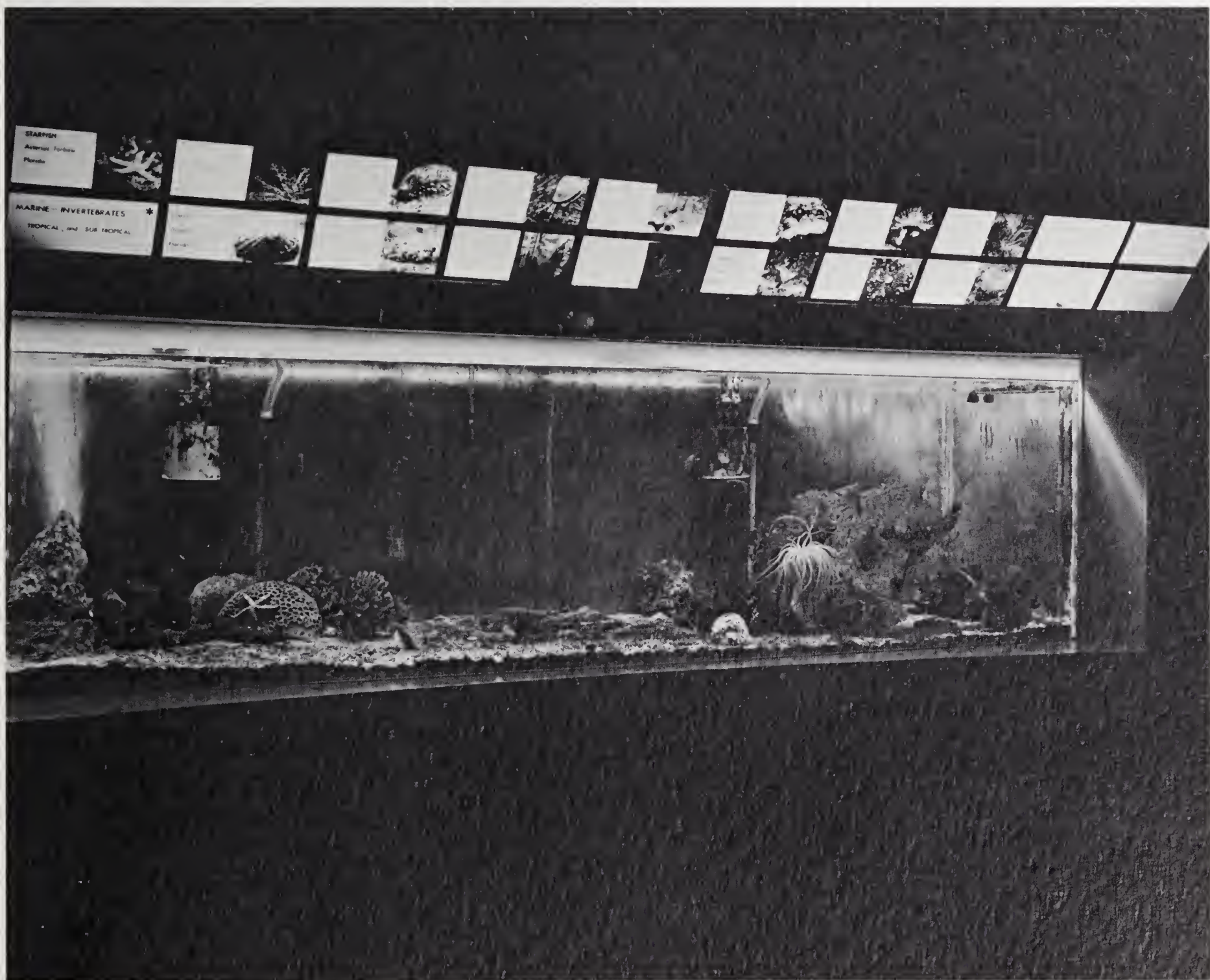
The Department was intimately involved in the installation early in 1970 and operation of the "Stereoscan" Scanning Electron Microscope (N.R.C. Grant) which serves the science departments and research workers from the University of Toronto and other universities. However, this is another valuable step in the direction of providing services to all the universities in Ontario which care to avail themselves of them.

The Curator collected Palaeozoic invertebrate fossils in Iowa, Oklahoma and Illinois. He joined the small group of Canadian palaeontologists contributing to the *Treatise on Invertebrate Palaeontology* – writing chapters on the submicroscopic shell structure and buoyancy mechanism in the coleoid cephalopods. His paper on "Devonian Nautiloids from Northern Canada" was published by the Geological Survey of Canada.

It has been a busy and productive year for our Research Associates. Professor Madeleine A. Fritz completed two papers and had one published. Dr. C. R. Barnes and Dr. J. B. Waterhouse each published a paper in the ROM Life Sciences Occasional Paper series. Dr. Gerd Westermann, a new Research Associate from McMaster University has completed a paper for submission to the Museum's publication series. Unfortunately the rate of production of our scientists has outstripped our financial ability to produce these scholarly papers and the Museum will be forced in the forthcoming year to find some means of restricting its publication programme. The sum needed is so small but the credit to Canadian scholarship so large.

We welcomed as Research Associate Dr. Anita Brinckmann-Voss, formerly Curator of the Aquarium at the Naples Zoological Station and subsequently of the University of Manitoba. Her field of specialization is Hydrozoa, a large and varied group of mostly marine animals.

All these unpaid specialists add strength to our staff. We only regret that it is not possible to provide these men and women with more adequate facilities from which the Museum, the public and the world of scholarship would benefit.



Saltwater aquarium in Gallery of Invertebrate Palaeontology holds typical temperate and tropical marine invertebrates (starfish, anemones, plume worms, snails, clams, shrimps). Ancient seas held similar life now preserved as fossils

Department of Mammalogy

Dr. R. L. Peterson, *Curator*
Dr. J. R. Tamsitt, *Associate Curator*
Miss J. Eger, *Curatorial Assistant*
S. Brock, *Research Associate*
Mrs. N. Curry, *Research Associate*
Dr. M. B. Fenton, *Research Associate*
Dr. D. Valdivieso, *Research Associate*
J. Williams, *Research Associate*
J. Borack, *Senior Technician*
B. Herbert, *Technician II*
Mrs. G. Rerup, *Department Secretary*
Miss E. Nespiak, *Secretary*



Rapt viewers of slide show in the exhibition of material collected during the ROM Curry expedition to Cameroun

Activities of the Department continued at an accelerated rate with several events contributing to an exciting year. A major scientific expedition to Cameroun, West Africa, January 12–March 7, stands out as the dominant feature of the year. The expedition was sponsored by Mrs. Noreen Curry, Research Associate, who sponsored a similarly exciting expedition to Madagascar in 1967. Aided by funds from the Canadian National Sportsmen's Show as well as from the ROM, the expedition was almost a year in the planning stage. The Curator and Mrs. Curry were assisted by Robert Glen and Philip Imbayi of Nairobi, Kenya. Using a long wheel-base Land Rover, the field party travelled close to 5,000 kilometres through the interior of both West and East Cameroun, establishing camp at locations favourable for collecting and field study of mammals. Bats were again the subject of special study although a general survey was carried out. Almost 700 scientific specimens of mammals were collected representing some 62 kinds of mammals, including 42 different species of bats. Of the latter, no less than 12 species were collected that had never been taken in Cameroun before. One of these appears to be new to science. A special exhibition covering this trip was organized from June 22 to July 26.

Although the curatorial staff did considerable travelling to remote areas during the year, the home staff were also extremely busy. The collections increased by 5,892 specimens (5,578 bats). Of these, 96 were donated, 4,623 were purchased, 33 were received on exchange and 1,140 were collected by the staff.

The special bat research project with its network of co-operators around the world is rapidly developing the ROM collection of bats to a position of world prominence. The great variety of bats received during the year came from many countries and included 12 different families, 65 different genera and over 145 different species.

The Department went through a rather uncomfortable year as a result of physical alterations to our premises. Much of our fifth floor area was vacated to make room for the Laboratory of Evolutionary and Systematic Zoology which necessitated finding new storage facilities. Two walls were torn out and an office-laboratory was constructed for the Associate Curator. The old room used as a fur storage room was cleaned out and converted to a proper cold storage area – a facility which we have desperately needed for years. In the middle of this confusion, it was found possible to have

the rotunda area painted – the first coat of paint in almost 40 years! Display General earned the Department's thanks. While all of the above confusion was in operation, we received our largest consignment of new specimen storage cases – 75 pieces! – along with assorted other shipments of new equipment and, of course, specimens from remote areas of the world. Needless to say, the Department of Mammalogy has moved into a new era!

The year was a busy one for the Associate Curator. He continued his duties as one of the Associate Editors of the *Journal of Mammalogy* and over 170 manuscripts passed through his hands during that time. He was deeply involved in the formulation of the new Laboratory of Systematic and Evolutionary Zoology and continued until January as Group Co-ordinator of the laboratory committee, planning the facilities and selecting suitable equipment. Dr. Dario Valdivieso, Research Associate, was instrumental in establishing the laboratory, and we are most grateful for the time and experience that he contributed. With the new facility functioning smoothly, Dr. Tamsitt and Dr. Valdivieso have been able to accelerate research on comparative studies of enzymes, hemoglobins and hematology of bats. The Associate Curator, in his capacity as Associate Professor, also assisted in the course in Comparative Anatomy given by the Department of Zoology of the University of Toronto.

Dr. Tamsitt continued his work on the taxonomy, ecology and ectoparasites of bats and has been studying the results of his collecting trip to Colombia in the summer of 1969 and data and specimens from his visit to Puerto Rico and the Virgin Islands in March. In Colombia he studied the small but significant collection of mammals in the Institute of Natural Sciences at the National University in Bogota and collected bats at several localities in the Eastern Andean Cordillera, from the high, cold paramos – over 11,000 feet – to the hot, humid regions of the Magdalena River Valley. From the rain forest of the Luquillo Mountains in eastern Puerto Rico he was fortunate to obtain for the collection another specimen of the rare fig-eating bat, *Stenoderma rufum darioi*. With Dr. Irving Fox of the School of Medicine, San Juan, he published a short paper on the occurrence in Puerto Rico of several species of the little-known group of mammalian mites of the family Listrophoridae and as well saw his paper on hemoglobins of bats, co-authored with Dr. Valdivieso, published by the Museum as Life Sciences Occasional Paper No. 14.

The Curator carried forward his research on bats and produced, as author and co-author, four papers during the year. One of these was a joint paper with Dr. M. Brock Fenton, a newly-appointed Research Associate of this Department. Dr. Fenton, now on staff of Carleton University, also contributed one paper arising out of his research in this Department. The Curator served as Editor of the ROM Life Sciences Publication Series and was appointed Associate Editor for Mammalogy for the *Canadian Field Naturalist*.

Miss Eger, as Curatorial Assistant, carried a particularly heavy load and did a most creditable job in spite of the heavy influx of specimens, the disrupting construction activities and the frequent absence of her curators. Fortunately, she was ably assisted by Mrs. Geraldine Rerup, Departmental Secretary, and Miss Eileen Nespiak, Secretary, as well as by Jim Borack and Brian Herbert in the preparation lab. Mrs. Sophie Poray and Paul Geraghty also made substantial contributions to the activities of this Department. Mr. Geoff Turner continues his graduate research on sexual dimorphism in molossid bats and plans were formulated for him to accompany Dr. Fenton on an expedition to Guyana, South America, to augment the extensive research involvement of this Department in a study of the mammal fauna of the area. Mr. Stanley Brock, another Research Associate, has provided many specimens in the past and is continuing to assist in building up our Guyana collections which are now unsurpassed

McLaughlin Planetarium

Dr. H. C. King, *Curator*
 Dr. T. R. Clarke, *Assistant Curator*
 Norman Green, *Assistant Curator*
 R. J. Ballantyne, *Curatorial Assistant*
 Mrs. J. M. A. SurrIDGE,
Planetarium Assistant
 C. Papacosmas, *Production Supervisor*
 Lothar Kistritz, *Technical Co-ordinator*
 W. R. Magill, *Technician*
 F. W. Jessop, *Electronic Technician*
 C. F. Gomes, *Physical Plant Engineer*
 Mrs. C. Gross, *Advance Booking Clerk*
 R. L. O'Neill, *House Manager*
 H. Creighton, *Lecturer*
 R. V. Ramsay, *Lecturer (P/T)*
 D. J. Fitzgerald, *Lecturer (P/T)*
 L. Clark, *Lecturer (P/T)*
 W. Ireland, *Graphic Artist*
 Mrs. P. Sinclair, *Receptionist*
 E. K. Biggar, *Typist*

For the staff of the McLaughlin Planetarium the activities of the past year have been no less demanding and exciting than those of the first year of operation. However, the success of the first four public shows and the encouraging response of students and teachers to the school sessions, although gratifying, allowed no relaxation in effort. One learns from experience, but in a project where shows are given on average twenty-six times a week and each one has to be planned several months in advance, the learning process has to be both rapid and efficient.

The curatorial and technical staffs have introduced effects and techniques which would have been impossible a year ago. For the public show *Some Famous Stars* (15th July–21st September), R. Ballantyne obtained the co-operation of announcers at radio station CJRT in producing an excellent taped narration in the form of a dialogue between four persons. By using the tape, the fifth speaker, the Planetarium lecturer, had a welcome break from the responsibility of giving a forty-minute narration, but only at the expense of having to work harder at the controls.

New ground, this time in the area of special effects, was broken in *The World of the Moon* (23rd September–30th November), devised by T. Dickinson. Its wealth of topical information and visual material was presented when, owing to the spectacular success of the Apollo 11 mission, public interest in the moon was very high.

At Christmas time every major planetarium offers something about the star described in the gospel of St. Matthew. *The Star of Bethlehem* (2nd December–11th January), planned by R. Ballantyne and N. Green, was our first treatment of this intriguing but by no means easy subject.

On 7th March, when the moon's shadow crossed the waist of Mexico and ran up the Atlantic seaboard, millions of people enjoyed a breath-taking view of the sun in total eclipse. In *The Story of Eclipses* (13th January–5th April), outlined by Dr. T. Clarke, visitors saw a reproduction of the total eclipse sequence, a view of the partially eclipsed sun as seen from Toronto, and obtained insight into eclipse frequencies and the scientific importance of total eclipses of the sun. Then, in response to several requests, the Planetarium made its first excursion into astrology with *Man and the Zodiac* (7th April – 5th July). During its preparation Mr. Ballantyne and Mr. Green became so buried in astrological information that the rest of the staff

thought that the show would never see the light of day!

During the year nearly 200,000 visitors attended 915 advertised public shows, an average of about 220 a show. An additional 4,500 visitors attended special shows. In relation to the total seating capacity of the Star Theatre of 355, this figure is quite good, but it is only to be expected that the novelty of the Planetarium would wane. The decline in attendance first became really noticeable in late August. By mid-September the weekly totals were well below the remarkably high figures (over 5,000) for late July and early August. Attendances rose rapidly in late September through early October to hover around 5,000 a week, but curiously enough, started to decline again during the highly topical shows *The World of the Moon* and *The Star of Bethlehem*. They rallied in mid-January and since then have been fairly constant at about 2,800 a week. From the statistics it is clear that public holidays, weather conditions, and other external factors have an effect on attendance far greater than the popularity of the topic of an individual show.

Attendance at school shows, on the other hand, have continued at their high initial level. During the year nearly 107,500 teachers and students attended 460 shows, an average of about 234 a show. This average is roughly the figure agreed to by teachers and the planetarium staff. Larger numbers would create problems in discipline and control.

A single school show, *The Moon and Beyond*, planned by Dr. Clarke and Mr. Green, was offered during the year, at two grade ranges, 3 to 6, and 7 to 10. Information about the moon was presented in such a way as to permit changes as new material became available. Teachers have been very pleased with this arrangement. The great majority of them are content to regard the Planetarium as an attractive medium for creating in young minds an interest in astronomy and space science rather than a way of providing detailed instruction.

Thanks to the Trust Fund so generously established for that purpose by Colonel R. S. McLaughlin, important improvements and additions have been made to the equipment serving the Star Theatre. It will now be possible to match music with effects and arrange for the automatic sequencing of several hundred projector operations.

The Planetarium Reference Library is one of the very few areas in the Museum where space is not at a premium. Even

so, some of the shelves now have a well-stocked appearance, especially in the sections on space flight and space research. Unfortunately, the library is used by the general public to a significant extent only on Saturdays while on other days it is used mainly by a few interested students. On the other hand the Toronto Centre of the Royal Astronomical Society of Canada had made great use of the Optical workshop. On most Friday evenings during the winter small groups of people assembled in the workshop to acquire, from first principles, sufficient skill and knowledge to make their own telescope mirrors. The Toronto Centre continued to hold its monthly meetings in the Lecture Room, and by its close association with the Planetarium and other activities, has done much to promote the growing local interest in astronomy.

C. Papacosmas, formerly of the Dow Planetarium, Montreal, was appointed Production Supervisor, with responsibility for the general surveillance of artwork, photography, and projectors for special effects. W. Ireland was appointed Graphic Artist, and C. Gomes, who had resigned from the Planetarium to take up an appointment with the University of Toronto, returned to fill the post of Physical Plant Engineer. Early this year T. Dickinson left the curatorial staff to assume his new post of Assistant Director at the Strassenburgh Planetarium, Rochester.

In July, the curator visited the Zeiss works at Oberkochen, West Germany, and attended the Third International Conference of Planetarium Directors in Vienna. As a result of his account of the nature and philosophy of the McLaughlin Planetarium given at the Conference, delegates requested that Toronto be the venue for the Fourth International Conference, scheduled for 1972. A further outcome of the meeting was the offer by the Directors of the Strassenburgh Planetarium, Rochester, and the Adler Planetarium, Chicago, to share in the events and cost of the 1972 conference.

During the year the Curator, as Associate Professor in the Department of Astronomy, gave a course on Astrophysics to undergraduates in the University of Toronto. He assisted graduate students taking the history of astronomy, served as an examiner, and gave two open lectures, "The Telescope of Sir William Herschel and John Dollond" and "The Invention of the Achromatic Telescope." He also gave 40 lectures in three separate evening courses on Astronomy and the History of Cosmology. In May he was elected

second Vice-President of the Royal Astronomical Society of Canada and resumed his research for a miscellaneous publication on the history of the Planetarium.

In December, Dr. Clarke was awarded the degree of Ph.D. for his thesis: *Polarization Measurements in the Region of North Galactic Spur at 707 MHz*. He has given a series of lecture-demonstrations in the Star Theatre to classes of students of astronomy from the University of Toronto, York University, Scarborough College and Erindale College. He took five sessions of the University of Toronto Extension Course Advanced Astronomy and collaborated with CBC radio just before the eclipse of the sun of 7th March, 1970.

Mr. Green has continued his work in presenting astronomy to the general public. He has given a course of twenty lectures – *Astronomy for the Layman* – at Etobicoke Collegiate Institute, and fifteen outside lectures on astronomy and the Planetarium. In May he received the Service Award of the Royal Astronomical Society of Canada.

Many planetariums in U.S.A. and Canada sent members of their staff to observe the total eclipse of 7th March. Mr. Papacosmas and Mr. Ballantyne represented the McLaughlin Planetarium at a site at Elizabethtown, N. Carolina, and obtained a fine series of photographs of the total phase.

There is much talk in planetarium circles about the advantages of using taped narrations and even taped shows but, in the Curator's opinion, the advantages are not yet sufficiently great to justify a move away from "live" productions. The present policy is to develop automatic techniques of sound and optical projector control so as to leave the lecturer comparatively free to concentrate on his presentation.

In collaboration with Information Services, arrangements have been made to send out letters to various professional and other groups to encourage them to attend Planetarium shows, and to make available at low cost a printed and illustrated booklet which provides background information on each and every public show.

That an attendance decline would follow the first few months of operation was expected: it is a characteristic of every major planetarium. Also expected is a further decline, but according to general experience in planetarium operation, it should level off after about two years and then turn into an increase. Time

must elapse before the majority of the local population realizes that a planetarium is primarily an educational facility and is, or should be, concerned with astronomy. It is certainly not a place of entertainment per se, although it must present its subject in an entertaining way. It follows that a planetarium, and least of all the McLaughlin, must not try to ape places of popular entertainment but must retain its individuality and at all costs endeavour to maintain high cultural and educational standards. If it does so it will eventually earn the respect and regular support of a reasonably large section of the community.

Department of Mineralogy

Dr. J. A. Mandarino, *Curator*
 Dr. R. I. Gait, *Assistant Curator*
 Dr. F. J. Wicks, *Assistant Curator*
 Umberto Grassi, *Chief Technician*
 A. E. Hurtado, *Technician*
 Mrs. Cynthia Peat, *Technician I*
 D. McKinnon, *Junior Technician*
 Miss M. M. Ward, *Department Secretary*

The Curator, Dr. J. A. Mandarino, reports that the new galleries continue to give great pleasure to visitors to the Museum. Thus the major staff work went on behind the scenes. Dr. F. J. Wicks and Mr. D. McKinnon joined the Department. To make space for certain major pieces of equipment acquired under the National Research Council grant to the science departments, it was necessary to effect changes in layout of offices and laboratories. The remodelling of office space in particular has effected more security and efficiency.

Many calls for identification continue to be made – this year approximately 245 requests from 70 individuals. The Department gave or loaned 185 specimens. The collections increased by 5,000 specimens, mainly due to the acquisition of the Pospesel Micro-mount Collection. Micro-mounts are very small crystals or groups of crystals mounted in small plastic boxes $\frac{7}{8}$ " \times $\frac{7}{8}$ " \times $\frac{3}{4}$ ". When viewed with a microscope, these specimens are extremely beautiful since the small crystals are usually much more perfect than their larger relatives. The Pospesel Collection, consisting of about 4,000 micro-mounts, will provide the nucleus for the growth of a larger micro-mount collection. Prices of fine mineral specimens, like other museum objects, have been increasing steadily but the Department acquired a number of outstanding pieces and twenty-six species new to the collections. Important mineralogical acquisitions purchased during the past two years have reduced our Specimens Trust Account to a very low figure. The Department looks forward to a build-up of this account by gifts so that the ROM's mineral collection can maintain its high position among the world's collections. An important and gratifying source of specimens for the Reference collection was brought about by a project of the Central Canadian Federation of Mineralogical Societies. The Federa-

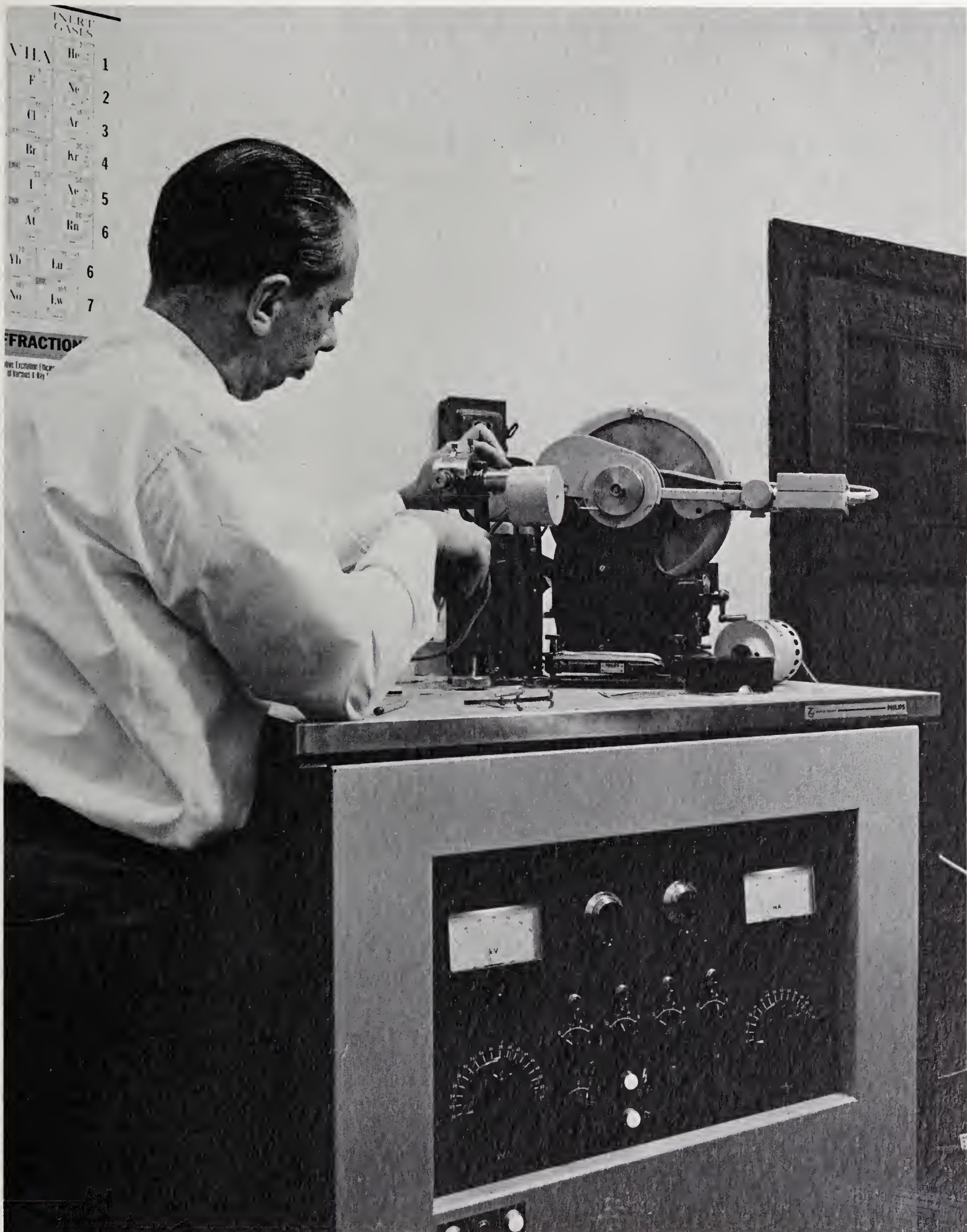
tion appealed to all members of its twenty-three affiliated clubs in Ontario and Quebec to send specimens of certain minerals and from certain areas to the ROM. The response was extremely good and we are grateful to all who contributed.

Drs. Mandarino and Gait gave thirteen lectures in addition to talks to the Museology Course and the Toronto Junior Field Naturalists group. Dr. Mandarino was appointed by the Mineralogical Association of Canada to represent Canada on the Museums Commission of the International Mineralogical Association. He served on the Award Committee of the Mineralogical Society of America. Dr. Gait was elected president of the Walker Mineralogical Club.

Field work was carried out in Ontario (Marmora and Sudbury), Quebec (St. Hilaire and Montreal), and Manitoba (Bird River).

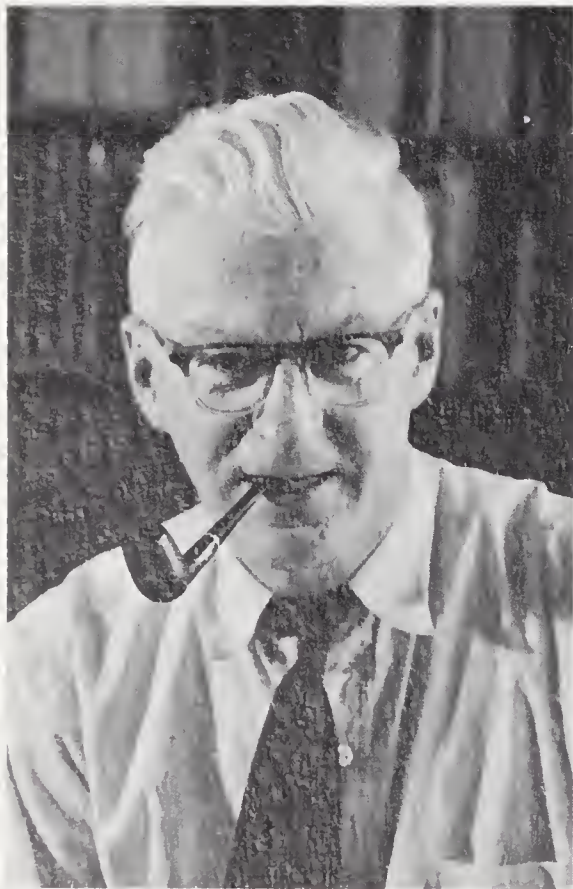
The third Annual Open House for mineral collectors was held and featured an "opening" of a special display of Norwegian minerals. Mr. Anton Jensen, Norwegian Consul, officiated.

The Toronto branch of the Canadian Institute of Mining held a family night in the Gallery of Mineralogy as well as in the Geology Gallery. We were honoured that the Honourable Allan Lawrence, Minister of Mines for the Province of Ontario, chose the Mineralogy Gallery for a reception for the delegates to the Provincial Mines Ministers' Conference.



Department of Ornithology

Dr. J. C. Barlow, *Curator*
 J. L. Baillie, *Assistant Curator*
 Dr. D. M. Power, *Assistant Curator*
 J. A. Dick, *Curatorial Assistant*
 Mrs. C. M. Goodwin, *Curatorial Assistant*
 Dr. W. W. H. Gunn, *Research Associate*
 Rev. R. C. Long, *Research Associate*
 Dr. J. D. Rising, *Research Associate*
 Dr. H. G. Savage, *Research Associate*
 (P/T)
 R. D. James, *Research Assistant (P/T)*
 G. B. Murphy, *Junior Technician*
 Mrs. D. M. Bunston, *Department Secretary*



The late James L. Baillie, Assistant Curator in the Department of Ornithology. Photo Ray Webber

On May 29, the Department and the Museum suffered the loss of Mr. James L. Baillie, Assistant Curator, only about one month before he was due to retire. He had served on the Museum staff for forty-eight years and had contributed most significantly to the development of both the Department and the Museum. He filled a unique role among Ontario ornithologists and his influence was felt at every level from amateur to professional. He served the province and the country in a variety of ways ornithologically and he launched the amateur careers of literally hundreds of bird field observers. He was both a most meticulous man and a popularizer in the best sense of the term. At the time of his death he was working on the career of the interesting early ornithologist and historical figure, Charles Fothergill, on the history of naturalists' clubs in Ontario and on a history of ornithological investigation in the Province. He was also working on a semi-popular book on birds for the Ryerson Press. A major contribution to the Department was his careful maintenance of the departmental maps of the distribution of species in the Province. He had many friends who will miss him.

The report of the curator, Dr. Jon C. Barlow, dwells mainly on his Department's research. He continued his major study on vireos and with Dr. Dennis M. Power, their work on geographic variation in Gray Jays. With other members of the staff, Dr. Barlow prepared manuscripts on habitat co-occupancy among vireos in the south-west, the distribution of birds in British Honduras, breeding of the Black-bellied Tree Duck in Arizona and geographic variation in Red-eyed and Philadelphia vireos across Canada.

Dr. Power completed his specimen measurements on Ontario and Manitoba samples of Brewer's Blackbirds – an interesting species which has benefitted from man's agricultural and lumbering activities to increase its range. He is also working on samples of House Finches and Scrub Jays. A new project is centred on the tropical forests of the Amazon River Basin. Dr. Power is also collaborating on six projects with colleagues in the Museum and in the universities of Toronto and Buffalo. Mr. James A. Dick, Curatorial Assistant, received his M.A. with a study on geographic variation of the House Sparrow and collaborated in two papers.

Our Research Associates had a productive year. Dr. Howard Savage continued his reconstruction of ecological associations of past centuries and performed autopsies on numerous birds including four

Whistling Swans which mysteriously died this summer. The Rev. Charles Long worked on his study of the African Violet-backed Starling and his field study and banding of the American Robin in Ontario. Mr. Ross D. James enlarged his studies on vireos. A new Research Associate, Dr. James D. Rising (U. of T.) is working on Savannah Sparrows, Rufous-sided Towhees and Bullock and Baltimore orioles.

Dr. George K. Peck, in charge of the departmentally sponsored Ontario Nest Records Scheme, recently surveyed nesting in Polar Bear, Algonquin and Rondeau parks. He also made in depth breeding studies of the Turkey Vulture, Great Blue Heron, Gray Jay and Common Raven. Some of the results of his work were published in the *Ontario Field Naturalist* and *Ontario Naturalist*.

Field work took the Department to Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Arizona, California, Texas, Puerto Rico, and Guyana. All resulted in much scientific data and many additions to the collections. Ten lectures and scientific papers were given to both amateur and professional groups by staff members. Approximately 2200 bird specimens were added to the collections. Many students from Canadian and American universities studied in the Department.

The curator contributed to the University of Toronto's teaching programme and supervised four M.Sc. and two Ph.D. candidates. Mr. Baillie delivered eight lectures in the University of Toronto Extension Service.

From time to time the Director receives letters, fortunately few, of complaint from members of the public. This year one such letter accused him of insufficient provincial orientation in that the Ornithology gallery did not contain enough Ontario birds on exhibit. A census of material on display revealed that of 118 birds exhibited, 49 occur in Ontario. This seems to be a reasonable proportion in view of the demand to see birds which do not occur in this area or country.

The galleries remain totally inadequate but, until a decision is made on expansion, very little is either possible or economically sound. In view of the rapidly increasing popularity of ornithology and its wealth of interest, nothing could be more regrettable.

Department of Vertebrate Palaeontology

Dr. A. G. Edmund, *Curator*
 Dr. C. McGowan, *Curatorial Assistant*
 Dr. C. S. Churcher, *Research Associate*
 Dr. J. L. Kay, *Research Associate*
 Dr. T. S. Parsons, *Research Associate*
 F. D. Ross, *Research Assistant*
 Gordon Gyrmov, *Senior Technician*
 H. R. Vanstone, *Technician*
 S. R. Holloway, *Junior Technician*
 E. Davis, *Junior Technician*
 B. Smith, *Junior Technician*
 G. Hammond, *Junior Technician*
 L. Ferguson, *Junior Technician*
 L. J. Foreman, *Department Secretary*
 L. Smith, *Stenographer*

Dr. A. G. Edmund, Curator, reports that due to the all-absorbing demands of gallery renovation, this has been the busiest year in the history of the Department. The old galleries, though ever popular with generation after generation, had long needed a complete reinstallation along modern, interesting and yet educational lines. In the available space the dinosaur gallery will feature only complete skeletons with, it is hoped, dramatic impact. The remaining specimens and their scientific significance will be treated later in another area. The first phase was opened in November, 1969, in time for ROMarama night. The aquatic reptile group is now complete though not yet visible to the public. The Curator believes it to be one of the finest displays of its kind to be found anywhere. Construction of the third phase, the Evolution of Man, Ice-Age Mammals, the Evolution of the Horse, and a Diorama of Tertiary Mammals is now well in progress and scheduled to open in the fall of 1970. In the preparation laboratory work continued on some of the dinosaurs for the East Gallery which will follow. Display design and production is a complex operation, especially in such a technical field but the galleries are being produced almost completely by the staff of the Department, using no outside designers but with the expert advice of the Design Department. Nevertheless it is a slow, and can be a very frustrating, experience. For this initiative all concerned deserve great credit. Four extra technicians were hired for the duration of the display programme joined for the summer by six students kindly supplied by the Board of Education. It is excellent to be able to give young people such intimate experience of the Museum and, since many ask to return year after year, they must find it stimulating and rewarding.

An important addition to the staff was Dr. Chris McGowan, a specialist in

ichthyosaurs but invaluable also in planning, mounting and displaying a variety of skeletons. Mr. Ralph Hornell retired after 48 years of dedicated service. Gordon Gyrmov was appointed Senior Technician. The well-known artist, Harold Vanstone joined the permanent staff.

As a result of the gallery rebuilding, research has necessarily been temporarily curtailed. However, the Curator found time to supervise the opening of a quarry in the Green River Eocene Shale near Kemmerer, Wyoming and Gordon Gyrmov and his crew of students there collected about 900 specimens, many of them large, well-preserved fish. Dr. Edmund visited British Columbia to help a graduate with his Ph.D. thesis and also Florida to contact fossil collectors. Mr. Neal McCool donated a large collection of Pleistocene vertebrate remains from the Port Charlotte area. Four graduate students participated in field work. Dr. Russell obtained a two-year lease on a sand quarry rich in rodent teeth which he is studying. Dr. Churcher, Research Associate, is studying specimens brought back from South Saskatchewan by Mr. Les Kisko.

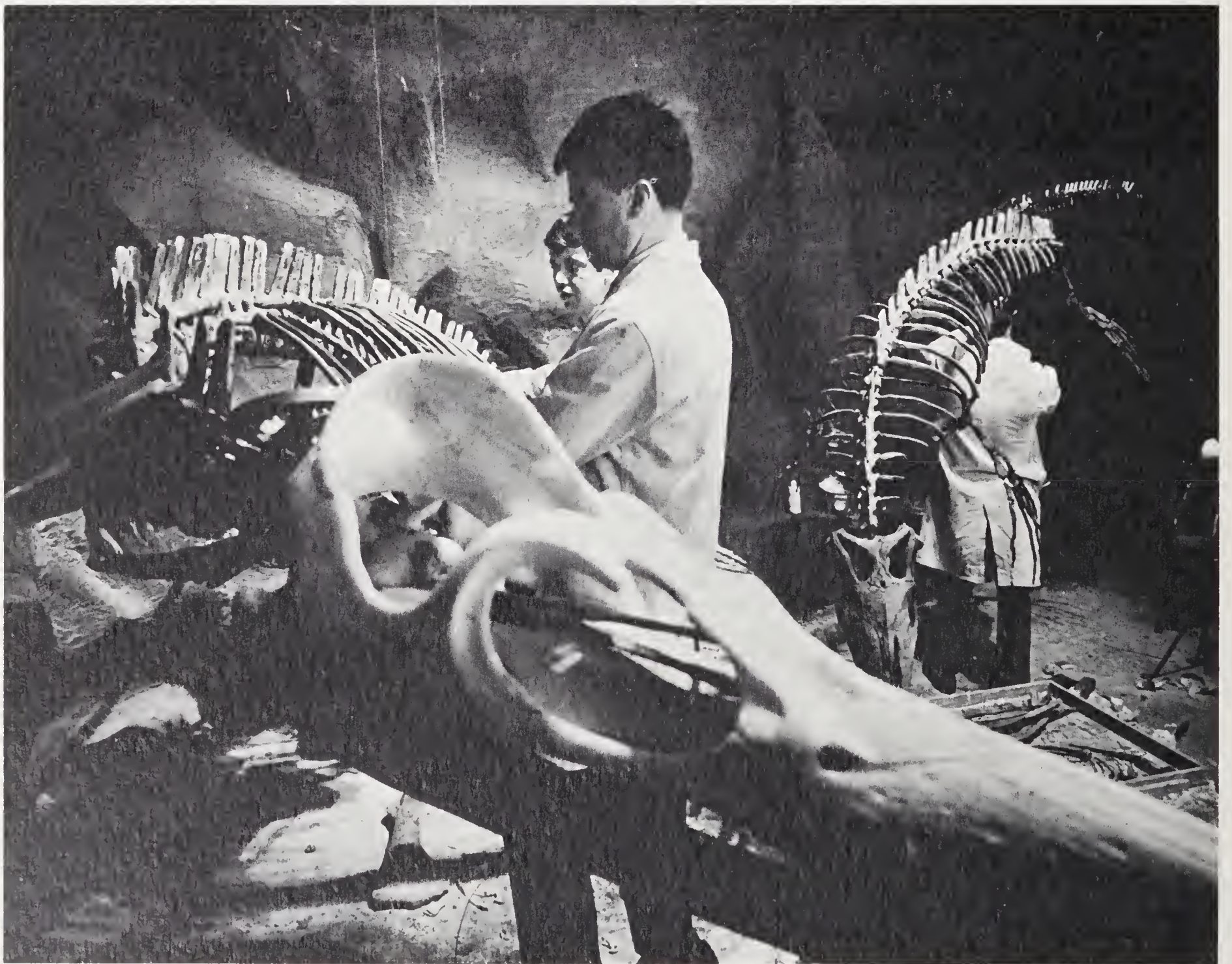
Improved equipment in the workshop and laboratories has greatly facilitated the Department's work and a new vehicle has served well in the field.

A great deal of new material has entered the Department this year, including the 900 fossil fish specimens, a Miocene mammal collection from Dr. Russell and Mr. John Storer and three collections from Florida rich in both terrestrial and marine vertebrates. The late Mr. W. G. Hyslop greatly enriched the modern osteology collection with many skeletons of African mammals. A number of rare or unique specimens were copied from other institutions. This Department will, for the public and students alike, be able

to illustrate the remarkable record now unfolding of man's ancestry.

The whole Department eagerly awaits the completion of the new displays which have absorbed so much of its time, thought and energy. They should make a deep and lasting impact on the educational life of the Province.

Technicians at work on skeletons for the renovated Dinosaur Gallery. Photo Erik Christensen. From the Globe Magazine, Globe and Mail



Education Department

Miss Norma Heakes, *Head*
 Miss Ella Martin, *Senior Lecturer*
 Miss Eugenia Berlin, *Supervisor*
Saturday Morning Club (P/T)
 Miss Betty Clark, *Lecturer*
 Miss Alice Chrysler, *Lecturer*
 Miss Margaret Cumming, *Lecturer*
 Miss Mary Fitz-Gibbon, *Lecturer*
 Mrs. Patricia Isetta, *Lecturer*
 Mrs. Helen Tracy, *Lecturer (P/T)*
 Clare Westcott, *Research Associate*
 David McClure, *Lecturer (Bd. of Ed.)*
 David Young, *Lecturer (Bd. of Ed.)*
 Miss Ilona Hirseland, *Department*
Secretary
 Mrs. Georgette Frampton, *Secretary*
 Miss Judy Penfold, *Secretary*
 Miss Evelyn Kennedy, *Junior Technician*

The Museum is very conscious that with regard to the education of children it has a unique opportunity. Miss Heakes, Head of the Department, defines this as "an opportunity to bring together young, keen minds and authentic material. Our chief function is to turn the teaching potentials of the Museum into a learning experience."

Now that overnight school trips are being encouraged we find both elementary and secondary schools coming from greater distances. Atitokan, Thunder Bay, Sault Ste Marie, Ottawa — the names read like a train schedule. This year the Department became very aware of the requests for teaching services from classes from the United States. The 14 classes plus 12 others conducted by their own teacher, totalled 1550 pupils. One group from Michigan even came part way by plane.

Correspondence reveals, even at a young age, a critical eye;

"Dear Sir,

I liked your museum because your animals looked realistic. You put the dinosaur bones together well. Your mummy is well preserved. Your building was in good shape and I liked it."

Or a word of appreciation from a school teacher to a ROM teacher;

"On Thursday last I took 50 of my Grade 9 students to your institution on a field trip. They found it most interesting and informative because of the method of instruction your guides use. No longer do they lecture at length; rather they allow the students to look and then ask questions. It is most encouraging to see you employing these methods.

Again, thank you for a most worthwhile venture."

The Chairman of the History Department from Elia Junior High School, North York expresses reaction to an experiment initiated this year, i.e. the use of museum material in the classrooms of a Metropolitan Borough.

"On Monday and Wednesday of last week it was our pleasure to have Mrs. Isetta of your education department conduct a 'Teach-In' on Archaeology. Approximately 225 Grade 7 students had the opportunity to take part. The enthusiasm and interest that resulted from your programme should be extremely satisfying to you and a great help to us. We found Mrs. Isetta particularly responsive to the children and more than willing to adapt to problems that arose."

Another North York School, Daystrom Public School, undertook to experiment with one of our 'Porta-Museums,' as they called it. The study of the contents of the Fur Trade case was correlated with composition, drama, geography, spelling, mathematics and music. The pupils criticized the fact that they could not handle the material, yet acknowledged that the artifacts were more powerful than pictures. They were all in agreement that pupils lost interest quickly if objects were labelled. These criticisms should be considered when preparing the other 17 cases which are offered to the various Boards of Education. Congratulations go to Miss M. Cumming for keeping the cases on the road, and getting them back safely at the end of the year.

Travelling cases have been used by organizations other than schools. Last August, Ryerson Polytechnical College included two of our cases in their communications exhibit at the Canadian National Exhibition. The Ontario Department of Mines borrowed the Geology case to use at Junior Forest Ranger Camps where approximately 600 boys studied the display and notes.

A further means of extending the learning experience created by museum objects is the visiting programme to schools beyond 150 miles of Toronto. During the winter of 1970, in spite of flu and snow, four teachers reached some classrooms in and around Haileybury, Kirkland Lake and New Liskeard. They took with them archaeological, historical, and scientific material which added variety to the daily routine, at the same time introducing 4,300 pupils to the Royal Ontario Museum.

The Learning Experience was again also taken to those who cannot come to the Museum; patients in the Hospital for Sick Children, The Ontario Hospital for Crippled Children, Bloorview Hospital, The Clarke Institute and The Ontario Hospital, Queen Street. Communicating with these special communities requires patience and understanding, as well as knowledge. Our fine team of teachers are to be congratulated on the way they meet any challenge. Because of Miss Mary Fitz-Gibbon's work at the Ontario Hospital, Queen Street, some of the patients have come to the Museum itself. No mean adventure!

This year the four Curatorial Sessions for Grades 10-13 were organized by Miss Ella Martin in answer to requests from gifted enterprising students to involve the participants. This meant limiting the number of students. The emphasis was

placed on quality rather than quantity. The two laboratory type sessions "A Study of the Behaviour of Fish," namely Siamese Fighting Fish, and "The Far Eastern Department: a Study in Work," were exciting experiences of observation and communication. A larger number of students were privileged to attend "The Archaeologist at Work: A Maya Site" and "Using the Museum's Mineralogy Gallery as a Resource Centre." These meetings are possible through the Curatorial staff's willingness to co-operate. Our thanks go to the following who directed the meetings:

Dr. Allan Emery, Research Associate,

Department of Ichthyology and Herpetology.

Dr. David Pendergast, Field Director, ROM British Honduras Expedition

Dr. Hsio-Yen Shih, Curator, Far Eastern Department, assisted by Sara Irwin, John Vollmer and Yutaka Mino.

Dr. R. I. Gait, Assistant Curator, Mineralogy Department.

Miss Ella Martin was responsible for the quality of programmes offered to the students in the Curatorial Sessions, and those given to the teachers who participated in museum seminars. She also

Basil Johnston, teacher of American Indian History, and Iroquois False-Face Society masks



organized the excellent and varied Extension courses presented to the General Public in collaboration with the Department of University Extension.

The three courses given in the Planetarium were attended by people keenly interested in Astronomy. "Digging into the Past" was enjoyed by an audience of varied ages and interests. At both the ROM and then repeated at Don Mills, students, teachers, amateurs and professionals had a quick review of what is happening in current archaeology. "Chinese Art" and "Invertebrates – Man's Unseen Associates" were planned for more intimate groups particularly of people who want to learn by doing, not just by listening. In total 20 different lecturers shared their experiences with 349 registered individuals, plus those who came only for one or two lectures. An excellent opportunity for the museum to communicate with the community!

The Sunday Film Programme continued to attract capacity audiences, some regulars of many years standing, and new friends who came for specific films. The Summer Film Programme added a bonus which is impossible to offer on a Sunday. Since films really show how other people see and "museums are for people to see for themselves," the film audience was invited to visit the galleries for further pleasure and discussion.

There is an increasing awareness of the need to understand the history and contemporary life of Canadian Indians. In this respect the Education Department plays an important role with elementary and secondary schools. Many classes visit the Indian galleries of the Museum to study the tangible evidence of Canada's original citizens. On the school visiting programme the history teachers always have artifacts which illustrate some aspect of Indian life. Of the five travelling cases devoted to Indians of the Americas, three are specifically Canadian. The following quotation was from a reservation school at Kettle Point.

"I would like to say that we found the case very valuable. We had done projects previously on native peoples. Seeing these objects helped to reinforce learnings. More especially I noticed that the children this time were less embarrassed about their Indian identity. I overheard them saying to one another – I'm a Chippewa or, I'm an Iroquois."

What may prove to be one of the most significant museum contributions to education was initiated in January when Mr. Basil Johnston was appointed as teacher of American Indian history – an

appointment made possible through a grant from the Department of Northern Development and Indian Affairs.

Much of Mr. Johnston's time was spent, by request, in the classrooms of Metropolitan Toronto schools and nearby counties. As the result of an obvious need, he has prepared a bibliography of some 250 books and a course in Indian history and in Indian-oriented Man in Society studies.

The visits to Indian Reserve Schools may prove to be even more important. As an Ojibway himself, Mr. Johnston is able to speak with insight to those he meets, and the implications of what he writes in his report are far reaching.

"Judging from the reaction of and reception of Indian students to Indian history, they have greater need for service of the kind initiated by the Royal Ontario Museum. If as a result of visits and instructions to staff, students and education committees, Indian history will be taught in Indian schools in the future, the Museum will have performed a very useful public service. In almost every Indian school visited, adults were present as observers. At Saugeen, Cape Croker, Christian Island, Wikwemikong, and West Bay Indian Reserves I was requested to address school committees and public meetings on the merits and advisability of incorporating Indian History in school programmes."

Last September we were happy to welcome to the teaching staff Miss Betty Clark from Alberta, and Mr. David McClure of Etobicoke as teacher appointed to ROM for two years. Each June we must say farewell to one of the seconded teachers. This year Mr. David Young has completed his two years. His philosophy of life, patience and sense of humor have contributed to the atmosphere of the Department.

The Saturday Morning Club under Miss Eugenia Berlin and her ten group leaders continues to serve the rising generation. Its popularity is unparalleled and it is unfortunate that it can handle only 330 of the 550 plus applicants. Many a lifetime devotee of the Museum has been formed in the ranks of the fortunate youngsters who attend the Club, share its creative activities and are exposed to many exciting new ideas.

As one unsolicited testimonial comments:

"Dear Miss Berlin,

I have gone to the Saturday Morning Club for two years. I have to travel over 30 miles to get there every Saturday. I

would not mind if the Club was everyday – I would be happy if you could consider letting me in the 1970 Club."

Somehow a means must be found to expand this invaluable programme.

Everybody is aware of the danger of statistics but, like examinations, they do provide some yardstick. A total of 177,607 persons had contact with the Museum through the Department and of this staggering total 128,363 received conducted tours. This does not include the attendance of the Planetarium. Metro naturally profited most with 88,134 attending; outside the ROM our teachers taught 15,034 children; 852 children came from U.S. schools.

The Museum's thanks are due to many volunteers in this Department and the Director is particularly grateful to the Deputy Minister of Education Dr. J. McCarthy for his interest and appreciation of our services and to those school boards, particularly the Metropolitan School Board, which express their appreciation in a practical way via grants. It is of interest that of 77 Boards of Education, Public and Separate, listed in the Provincial Directory, the Department has contact with 71.

Museum Library

Miss Eileen Taker, *Head Librarian*
 Mrs. Susan Johnston, *Assistant Librarian*
 Mrs. Victoria Ritchie, *Assistant Librarian*
 Miss Eveline Dowie, *Assistant Librarian*
 Mrs. Jeannette Alexander, *Library Assistant (P/T)*
 Mrs. Daisy Coburn, *Library Assistant (P/T)*
 Mrs. Grace Livingstone, *Library Assistant (P/T)*
 Mrs. Mary Smylso, *Library Assistant (P/T)*
 Mrs. Norma Townsend, *Library Assistant (P/T)*
 Mrs. P. J. Trunks, *Library Assistant (P/T)*

On the resignation of the Head Librarian, Mrs. Eleanor Fenton, who follows her husband to Ottawa, Miss Eileen Taker was appointed Head Librarian. She reports that, as a result of her predecessor's well organized notes and files, plus the co-operation of the other members of the Library staff, the change-over was very smooth. The Director congratulates Miss Taker on the able way in which she has assumed her position and grasped the details of this highly specialized, much-used service.

Statistics for 1969-70 show a further increase in the use of the Library in most areas. Museum staff requested 3,723 reference searches and borrowed 8,655 titles for departmental use. During the year the Museum Library lent 370 titles to other libraries and borrowed 863 for curatorial research.

The Library received no less than 3,918 requests for reference searches from the public. Thus, for the first time in the Library's history, reference requests from students (outside the ROM) and visitors exceeded those from the Museum staff. Cataloguing continued to occupy a major portion of the working hours of the professional staff. This year two library assistants were trained to process much of the easier material, thus freeing the librarians to devote more time to reference requests. As a result they were able to catalogue 3,007 titles, recatalogue 237 titles, subscribe to 435 journals and add 25,000 cards to the library catalogue.

125 titles on Near Eastern Archaeology were purchased from the \$3,000 Canada Council grant. Many of these were old, rare and difficult to obtain. However, the Library now has the basis on which to build an effective research collection in this field.

The Library wishes to acknowledge the many gifts of literature from individuals and other institutions; in particular, the

generous gifts of entomological journals by Father Riotte of the Entomology Department and one copy of the Catalogue of English and other silver in the Untermeyer Collection, by Mr. J. Harold Crang.

As a result of the continued high pace of museum publications, 20 titles (including four issues of *Rotunda*) were distributed to institutions throughout the world. The Library received many useful publications in exchange.

The reference statistics over the past year indicate what may be the start of a somewhat alarming trend for which we are not prepared. Inter-library loan requests from other libraries increased by 50%, and, as mentioned above, reference requests from the public exceeded those from Museum staff members. If a major portion of Library staff time is devoted to public service, the danger is that the Museum staff may tend to seek other sources for their material and information. This would eventually lead to the collapse of the library system as now organized. If this trend continues over the coming year it will require a serious re-evaluation of present library policy in order, where possible, to serve the public but also to ensure the library services so necessary to staff members.

Film Library and Archives

W. H. Bayley, *Head*
Mrs. E. D. Cruise, *Secretary*
R. Whitney, *Film Technician (P/T)*

The Museum is very conscious of the needs of the whole province beyond the immediate vicinity of Toronto. This new programme, under the direction of Mr. W. Hewitt Bayley, is off to a modest start. Through it the ROM proposes to increase its efforts and research into improved methods of communicating the realities of its artifacts and objects of art. The broad objective is to demonstrate through film and video how man "can raise the quality of his life by a recognition of the unity of knowledge and the plurality of truth."

The rapid advance of new forms of information transfer by means of electronic technology has raised a challenge for the museum researcher. The early failure of programmed teaching machinery and the disillusionment of educators with the "medium" has arisen, not by failure of the technology, but because of the educational equipment industries' false assumption that the medium's message and its effects would only reinforce the information which the pedagogue wished to transmit.

It is important that in the near future Museum scholarship and artifacts contribute to competent film media in order to assist it in meeting the present educational demands of the province, and indeed of all Canada.

The present ROM policy of transporting its artifacts bodily, reinforced by learning materials, to remote regions of the Province by means of full scale travelling exhibits installed in schools and the travels of the ROM Museumobile have all proved to be highly successful as on-going programmes. But they hardly scratched the surface. The demands for new expanded modes of Museum education in the field as well as in the Museum itself are running far in advance of present techniques and proposed physical capabilities.

The Museum hopes to improve film and

video technique in joint research and development programmes with various producers, initially for the creation of "museum films." This will help to meet the accelerating educational needs of the province and the Canadian community of students and scholars and of the Metro Toronto public at large.

Some of the many uses of film in museum work are museum staff training, museum education programmes in the Museum and museum education programmes in the field, museum training programmes for the Museology Programme, in universities, public education film programmes, public orientation to exhibits prior to gallery tour, environmental background for exhibits, cultural descriptions in exhibits, films for record, archaeological operations, experimental projects, conservation work etc.

After only six months of operation the programme, a joint concept from its inception in which museum departments involved gave generous support, has already made much progress.

In March 1969, Miss Ella Martin obtained one print from the BBC of Sir Kenneth Clark's *Civilisation* series. Screenings were conducted in the fall of 1969. These events were attended by staff, the touring committee and friends of the Museum. It was through the generous support of the McLean Foundation that the first set of *Civilisation* prints was purchased for the Museum.

Through the generosity of the members of the British Canadian Trade Association, another set of prints was purchased for the Museum to be circulated among educational and cultural institutions.

In November 1969, a modus operandi for showing the *Civilisation* series to the Founder Members of the Film Library & Archives in gratitude for financial support was decided upon. This "Founders Series" Programme was successfully

launched 3rd February, 1970. Thirteen segments and a special filmed interview continued over a seven-week period.

For a working area Display General undertook to remodel the old storage area under the Theatre Projection Booth. This film storage vault is now serving as an excellent editing, repair and film maintenance operation. The Museum's valuable archive of films is being cleaned, repaired and is now stored in a secure vault with a measure of humidity control. Simple editing equipment of good quality was installed.

The next step was to obtain part-time staff and Mr. Robert Whitney was put on staff to clean, inspect, edit, catalogue and repair Museum audio-visual equipment. Cataloguing of Museum films is in progress as is also the editing and cataloguing of Museum footage taken by curators and their staffs in the field. A freelance camera man has been used to record such Museum events as the construction of galleries and the creation of exhibits.

Two Museum films have been made. Miss Martin has written and recorded a special purpose experimental film illustrating the cultural import of museum objects to man and his world today. The Canadiana Department under Donald Webster made another film, a documentary of the Nun's Island Excavation in the summer of 1969.

The Film Library loan project for the *Civilisation* series is going well. Nine institutions have booked the series to February 1971.

The Rainy River and James Bay expeditions are being covered by cameras under the direction of Dr. Walter Kenyon. Other archaeological projects to be recorded are in Mexico and Prince Edward Island. Workprints of Dr. Pendergast's operations in British Honduras and the marine expedition, "Hudson '70," are ready for editing. The Museum is a vast resource which should be exploited. Means must be found to provide film records of all our expeditions and to originate programmes of genuine worth.

Museology Programme

W.H. Bayley, *Museology Administrator*
Mrs. E. D. Cruise, *Secretary*
R. Whitney, *Film Technician (P/T)*

The need in Canada for a top-level graduate training programme in Museology to support the lower level training programmes of the Canadian Museums Association has long been felt. It was first mooted as long ago as 1953. After two years of planning, negotiation and appraisal the programme was launched in co-operation with the Graduate School of the University of Toronto. Although time to advertise was short, six students enrolled and Mr. W. Hewitt Bayley joined the staff as administrator. Display General provided modest quarters. The course normally takes 15 months and the first class will graduate in December 1970. It comprises two graduate courses in the student's academic discipline (U. of T.), a lecture course of 3 hours per week in the Museum and a Practical Course involving work in another institution. Research for the Final Paper to demonstrate the student's ability to apply the training in Museology to an aspect of an academic discipline is arranged so as to help other institutions while broadening the student's experience.

We are happy that some are working in our sister institution, the Art Gallery of Ontario.

Many experts from within and from outside the Museum have given help to these colleagues of the future. A modest travel allowance enables them to travel a little to see other institutions.

It is safe to say that the 15 months of the course have been more than filled for the students who proved to be a very aware, eager and most stimulating group. They turned very alert minds to a wide variety of matters, from basic law to community needs, from lighting to public relations, and from the functions of a director to the role of a trustee. As Director, it was a pleasurable and very involving experience to teach the course on a number of occasions. Mr. Bayley is to be congratulated on launching the new programme so skilfully, not an easy task, and for so genially and with such evident enjoyment playing the role of *pater familias* to a delightful group of students from whom we expect much.

John Vollmer, W. H. Bayley and
Museology students in the study room
of the Far Eastern Department



Photography Department

Leighton Warren, *Chief*
Arthur Williams, *Photographer*
L. Gardiner, *Photo Technician*
Miss M. Cooke, *Department Secretary*

As reported last year, it was necessary to make an exception of the Photography Department and allow it to expand into gallery space. Thus, with plans drawn up by Display General, it now has larger quarters, proper office space, and some new equipment. A large copy room is equipped with the latest Deardorff enlarging and reducing camera. The output has remained very high at 16,227 prints, 4,805 negatives, 3819 slides and 348 colour negatives. This tremendous service to the Museum and the outside world has been achieved with Leighton Warren's constant good humour. We are indeed fortunate.

In Pursuit of Antiquity exhibition of Chinese paintings was enhanced by mini-gardens in Oriental style



Display General

J. R. Anthony, *Chief*
 G. S. McIntosh, *Assistant to Chief*
 Mrs. L. Levinsohn, *Artist-Craftsman*
 J. W. Hughes, *Artist-Craftsman*
 Miss Sylvia Hahn, *Artist-Craftsman*
 (P/T)
 Frank Peynado, *Painter*

This Department under John Anthony and his remarkably small staff carries a very heavy responsibility. In a large museum which through past neglect needs renovation in almost every area—seen and unseen—its work is endless and often urgent. The backlog is long and it is natural for each curator to think that his needs are more vital than another's. Again work stimulates work and one new gallery encourages another department to take a critical look at its own display. When no money was available, a sense of hopelessness pervaded the whole institution but as the Government loosened its purse strings a little a new and progressive atmosphere was created. Display General has met the challenge but all their work would have been ineffective without the two stalwart bodies of men who put their plans into effect – the Preparators under Mr. Ivan Lindsay and the Carpenters under Mr. Sinclair. Much depends upon their teamwork and good-humoured understanding. Tensions inevitably arise between groups of overworked staff but the underlying sense of doing a worthwhile job invariably triumphs.

Curators vary in the amount of intellectual in-put they are prepared or have time to feed the display staff. The more they can guide the display information, the better the outcome is likely to be. It is encouraging to see the curators taking more interest and responsibility than hitherto. At the same time as work increases, it has become necessary to try to establish an effective work progress system.

A tremendous quantity of work has come from the Department this year, including twenty-eight exhibitions, large and small. Gallery renovations in the Chinese, Islamic and Indian, Greek and Roman Sculpture court have been completed, and Vertebrate Palaeontology and Ethnology renovations continue. In view of the hope of major expansion large sums are directed only to these areas likely to remain where they are now located. Office and Laboratory revisions have been made to Mineralogy, Ornithology, Museology, Conservation and in the 4th and 5th floor laboratory areas to accommodate the equipment from the N.R.C. grant. Step by step the Museum is both rationalizing its space behind the scenes and renovating the public areas. The shortfall in funds for the coming year will slow down the pace of much of this work and, making a virtue of necessity, the year will be one of consolidation and completion of projects underway in the hope of what the Chinese would call “a great leap forward” in the future.

Display Biology

T. M. Shortt, *Chief*
H. D. Pepper, *Artist-Craftsman*
John Mair, *Artist-Craftsman (P/T)*

From T. M. Shortt comes a progress report on the fifth diorama in the series depicting major ecological area-types – the East African rain forest. Bordering on Lake Albert, the Budongo, largest of all existing rain forests in Uganda, was chosen as the locality to be represented. The Budongo is in fact an extension of the great Ituri forest of the Congo, but since the latter is no longer open to scientific research, the Budongo has become biologically most significant.

For our purposes, this area is representative of all the tropical rain forests, and shares with them many basic characteristics. It is composed entirely of “evergreens” – trees which never entirely lose their leaves. This can occur only in areas where precipitation equals or exceeds the rate of evaporation. The moist atmosphere of such regions encourages and stimulates the growth of all vegetation. Rain forests are literally great cradles of evolution, supporting the richest variety of plant and animal life on earth. In fact, as many species of birds have been recorded in the Budongo as in all of North America.

The diorama features the canopy of the Budongo, some eighty feet above the ground, with huge emergent¹ trees reaching up to fifty feet beyond this level. The actual location lies in the vicinity of Little Kasanene Hill, looking through a break in the trees towards Lake Albert and westward beyond to the rain-shrouded hills of the Congo. From this vantage point one may look out into the canopy itself or peer downwards to the dimly-lit forest floor where an elephant makes his way along a narrow path among gigantic roots and trunks. Above, through a screen of branches patches of blue-grey sky appear. A troop of chimpanzees has invaded the area in its

tireless quest for ripe fruit, setting the local bands of monkeys into a noisy retreat. A pair of large black-and-white-casqued hornbills scolds the chimps, while scores of other birds of many species go more or less unconcerned about their business. The entire canopy is alive with sight and sound – flashes of colour from bright birds and butterflies, raucous bands of anthropoids, the thick green foliage and gnarled lichened limbs of gigantic trees.

As the Budongo exhibit has progressed we have had requests from a variety of groups wishing to know how and why dioramas are constructed. They have come from public and secondary schools, universities and other museums and from several countries. Whenever possible, we have given them through our own facilities a glimpse of that varied and complex world which exists behind the doors of every Museum department. As a further aid to instruction, a complete photographic record in coloured slides is being made of each diorama. These are available to all sources inside or outside the museum. We take pride in these combinations of artistic and scientific observation which stand high in comparison with those of other museums.

The Budongo diorama has proved to be the most time-consuming of any yet produced, but at the same time one of the most fascinating. The material involved has in itself required extensive preservation and careful reconstruction, in preparation for its final use. Literally tens of thousands of leaves and plants are required, both preserved and made-up, all of which have to be properly mounted and painted. Much of this work has been carried out by the patient hands of John Mair, one of our artist-craftsmen. He retired this year and his painstaking, skilful services will be greatly missed.

For this diorama, large bundles of branches and vines collected in the

Budongo must be re-assembled, then restored by modelling and painting. Rubber moulds were made of trees and limbs too large to be transported to Canada. From these, detailed one-piece casts of the bark patterns were produced. Using them, Ewart Robinson has constructed uncannily accurate replicas of the original trees, including a huge fifteen-foot mahogany limb. When painted and covered with a thick growth of epiphytic plants, they will form a major part of the exhibit.

A number of the many bird specimens to be used have already been mounted in lifelike attitudes. Preparations are currently under way to mount two monkeys collected in Africa, augmenting two old ROM specimens which have been completely reconditioned.

It is our policy to use existing Museum specimens wherever possible rather than to collect new ones, this being particularly important in the case of endangered species.

Often the ravages of time necessitate extensive reworking of old mounts. Faded fur must be darkened, dry skin stretched out of shape must be returned to a more natural texture, and missing parts must be replaced. Several processes developed by the department have proved extremely successful, particularly in the restoration of the chimpanzees, the “stars” of our diorama.

“George,” a magnificent male chimp, was one of the foremost inmates of the Riverdale Zoo until his death in 1935, when he was brought to the ROM, mounted and placed on exhibit. After some thirty years of exposure George required extensive facial treatment, hair restoration and minor surgery to his ears, which stuck out like jug-handles. With these completed and darker skin colouring, he now resembles exactly a mature Budongo chimp.

1. This is a scientific term for any tree which projects above the normal canopy level.

How to build a baby chimpanzee. Four stages in the construction of a young chimpanzee for the tropical rainforest diorama. Photographs by David Pepper

Our female chimp was mounted by Rowland Ward in London around 1910 and came to the ROM in the 1920s. She was exhibited here for many years, making her last public appearance in a bookstore advertising "The Naked Ape" – not inappropriate for a member of the species known as the "bald-headed" chimpanzee. However she had been badly mounted, severely damaged and was of the wrong geographical race, but a few adjustments rejuvenated her. She received new ears, a completely new face, proper eyes, a thicker crop of hair on head and shoulders, and darker colouration of her own skin and fur. After waiting quietly for almost half a century, she will step out as the leading lady in our biological drama.

Her child, snuggled tightly in her arms, is a complete fabrication. He was made by applying our special techniques over a styrofoam and cheesecloth body completely artificial but realistic enough to make any taxidermist envious.

The background of a diorama is one of its vital parts, for a poor background or none at all can totally destroy the sense of reality in even the best diorama. The Budongo background, painted by Mr. Shortt, has a great feeling of depth and distance – sun-dappled leaves and dark shadows mingle and separate, carrying the eye far into the thick forest, while many newly-devised optical effects enhance this illusion, bringing foreground and background together to form a total visual unit.

The Budongo is presently in grave danger and may soon suffer the fate of the Bwamba and Impenetrable Kayonza forests which are even now being stripped by logging companies, their bare slopes taken over for the growing of tea and coffee. If the Budongo goes (and even now poisoning of the fig and plum trees as "undesirables" is being carried out by logging firms) one of the last refuges of the wild chimpanzee, already in danger, will disappear. Their food and shelter destroyed, the chimps and indeed most other species dependent upon the forest will perish. Sad to contemplate, it may well be that one day in the not too distant future, people will have to come to the Royal Ontario Museum to see what the great Budongo Forest was once like.



Information Services

B. A. Easson, *Information Officer*
Miss Beverly Slopen, *Information Assistant*

Mrs. O. G. Koyama, *Editor of Publications*

Mrs. Ursula Young, *Editorial Assistant*

Miss D. M. Adams, *Department Secretary*

Mrs. B. Fischer, *Special Projects Assistant (P/T)*

Mr. Bruce Easson, Information Officer, contributes his usual lively account to the year under review.

"Has the Museum caught its snake yet?" "How big is the universe?" "What's the next stop for the Museumobile?" "When does the next issue of *Rotunda* come out?" "How much does it cost to become a Founder of the Film Library?"

All day long the four telephones in Information Services ring. The caller may be a child, a parent, a publisher, a reporter, a film producer, a staff member. The calls reflect what the Department does – provide information, find information, suggest approaches and ideas, promote, advertise, publish.

In 1969-70, I. S. arranged or helped organize 18 television programmes related to the Museum, including a series of five half-hour broadcasts in the CBC *Lifestyle* series that involved ten ROM staff members. A total of 32 radio programmes involved the Museum and its staff. Complete publicity and advertising programmes were prepared for major exhibitions such as *Craft Dimensions Canada* and *The Origins of Chintz* plus numerous smaller exhibits, lectures, films, etc. During the six month tour of the Museumobile, I. S. made sure that newspapers and broadcast stations in each of the eleven communities on the route had current publicity material, including photographs. Then arrangements were made for the big vehicle to be displayed at the four-day Canadian Educational Showcase in Toronto.

Throughout the year, a constant flow of feature articles appeared in newspapers and magazines on special projects and Museum staff members and such offbeat events as the temporary disappearance of a small boa constrictor from a research laboratory.

Against a background of an often

uproarious promotion atmosphere, the more serious publications programme develops its own tension of printing quotations, design consultations, galley revisions and ever-urgent deadlines.

A monthly staff news-letter, *InterROM* started. The production of *Rotunda*, the quarterly magazine now in its third year is always hectic but became almost routine in a year that saw the publication of 12 scholarly works: five general publications, including the catalogue for *Craft Dimensions Canada*; two more of the Indian Heritage Chart series; and a catalogue of ROM publications. As the fiscal year ended, delivery was imminent of six more publications and production was started on a hardcover, 256-page volume containing 100,000 words of text, 100 half tone photographs, five maps and eight pages of colour illustrations on the people of New Guinea. Work also was in progress on a general ROM guide book with 60 colour illustrations which after the end of the year we learned is to be produced with a generous grant from the Xerox Corporation.

Along the way monthly calendars were produced and brochures prepared for the Planetarium, for the Members' Committee tours, and for the Chintz show.

Early in September, Charles Musson Publishers Limited was appointed distributor for all Museum publications in an effort to obtain wider markets and improved stock control. Mr. Musson also published a facsimile edition of the ROM's *Paul Kane Sketch Pad* in close co-operation with Information Services.

When it was decided to establish an ROM Film Library and Archives, I.S. conceived and produced a direct mail campaign for the Founders' programme of "Civilisation" series films to help raise funds. A press preview was arranged as part of the campaign. For the Museology degree course, a brochure was prepared and a

series of lectures was given to the students who also were taken on a tour of a printing plant.

Women of the Members' Committee frequently consulted I.S., particularly about ROMarama, that bubbly evening of fun and celebrities. In conjunction with ROMarama, artist Harold Town kindly agreed to design a Museum poster which was produced by I.S. and sold as a collector's item. From this project, I.S. devised a series of standard 20" by 28" posters designed by Canadian artists for advertising use and for sale. One, by Lisl Levinsohn, was produced in the series and three other artists have committed themselves to participate. Thus the Museum can incorporate the work of living artists.

The year saw considerable growth of the I.S. Photo Print service for publishers, researchers and authors. Hundreds of such orders were filled, many of them involving numerous prints, colour transparencies and background information. This service placed a heavy load

on the Photographic Department but the latter always cheerfully managed to meet the demand.

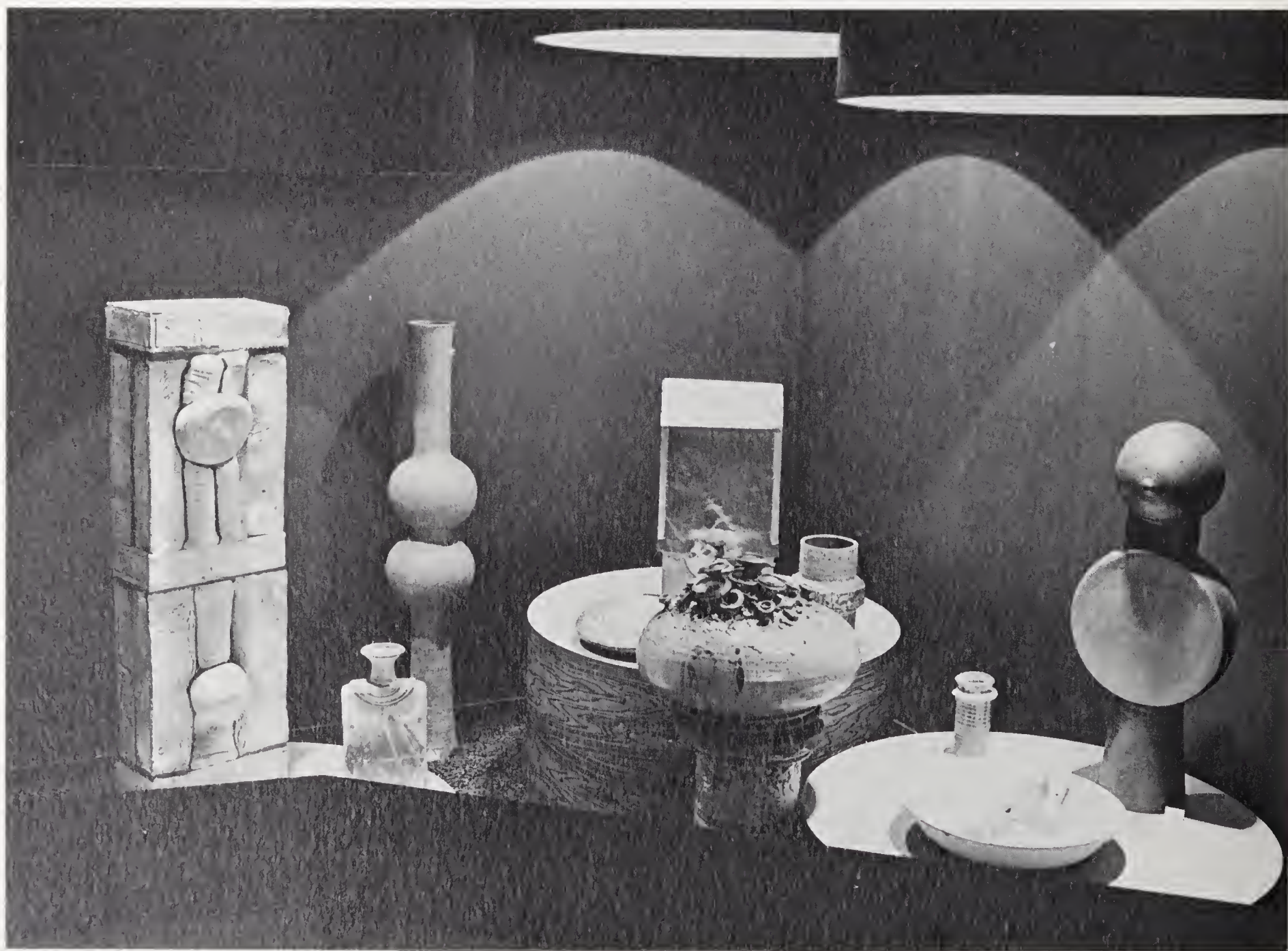
Arrangements also were made for many professional photographers and several film makers to work in the Museum and collaboration continued with META on its production of a film related to the reconstruction of the Vertebrate Palaeontology Galleries.

In the Spring, I.S. received two Canada Council grants. One is to initiate development of a central photographic library for the Museum, the other to establish a programme of full-colour photographic exhibits suitable for circulation to other institutions.

Thus I.S. manages to combine all the functions of an advertising agency, public relations firm and publishing house. That it is reasonably successful is due to its staff: Mrs. Olive Koyama, who supervises the publications programme, Miss Beverley Slopen, who handled *Craft Dimensions Canada, Origins of*

Chintz and Museumobile campaigns, places all advertising and acts as *Inter ROM* editor; Mrs. Beatrice Fischer who, since she joined the Department in September, has been responsible for so many of the radio and television programmes and feature stories; Mrs. Ursula Young, who manages the Photo Service, accounting and Rotunda subscriptions; and Miss Maureen Adams, receptionist, secretary, and willing maid of any task. Thanks also go to Burton Kramer and Associates who continued their fine graphic design work for ROM printed material, Mrs. Marie Hands, who designed each issue of *Rotunda* as she has since it was founded, the ROM Photography Department and all the other members of the Museum staff whose support and co-operation made it possible for the Department to serve the Institution.

Display of work by contemporary Canadian potters—part of the Craft Dimensions Canada exhibition



Programme Secretary

Mrs. H. M. Downie, *Programme Secretary*
Miss Katherine McLay, *Assistant to Programme Secretary*
Mrs. Anne Kachur, *Membership Office*
Miss Joan Caverly, *Department Secretary*

This important service under Mrs. Helen Downie has had its usual busy year and with the formation of an Exhibitions Committee, inter-departmental communications, always a problem, have improved. Our membership has increased slightly to 3,455 of which 704 are Life Members—a most encouraging proportion. It is particularly good to see how many Annual Members appreciate what they receive and take out Life Memberships—the best cultural “investment” in the country.

The Museumobile visited 13 centres and was attended by 81,253 people. Owing to the fact that it is seven feet too long to meet the regulations of this province, we were required to take it out of circulation. However, the Province of Alberta has purchased all our equipment and the Museum will acquire alternative equipment which satisfies Ontario restrictions. This programme does meet a pressing need to take our material to areas outside Toronto and is well worth continuing.

The following exhibitions took place:
In Pursuit of Antiquity, Craft Dimensions Canada, Batiks, The Origins of Chintz, James Lumbers' Mammal Paintings, Art from the Island of God, Moon Rock, 18th Century Wood-Block Prints.

Exhibitions in the Canadiana Gallery included *Two Centuries of Niagara Falls, Ships and the Sea, Narrative of Discovery* and *Profile of a Geologist.*

In the Third Floor Rotunda were shown *Islamic Art from the Collection of Edwin Binney III, The Bahamas Below, Animal Behaviour, R.O.M. Excavations in Iran 1965-69, Stitching, Building with Wood, Prisons of the Mind, Porto Theatre, Engravings after Portraits by Godfrey Kneller, Expedition to Cameroun.*

In the Lower Rotunda were *The Carvings of Sanchi, Wings and a Rabbit,*

Angkor and Bali: Two Worlds of Ernst Haas, Aerial Toronto: Two Decades of Development, Nature Abstracts from Mushrooms, Saturday Morning Club, Focal Forum, Outport, Children's Art, Royal Monuments of Westminster, The Sea and the Shore.

—a total of 33 exhibitions, large and small.

In the Canadiana Gallery public lectures were given on: “Furniture,” “Pictures,” “Historical Archaeology,” and “Pottery.”

Science lectures included “Pollution—The Effluence of Affluence,” “Pleistocene Extinction—Overkill or Overchill,” “Our Moon,” and “Water Pollution: Role of the Canada Centre for Inland Waters.” Other general lectures included “Contemporary Crafts in the Museum,” “Chinese Paintings from the Earl Morse Collection,” “Scottish Silver,” “The Western Debt to Indian Textiles,” “So You're Going to Japan,” and “Excavations at Siraf: A Medieval Port on the Persian Gulf.”

Despite antiquated conditions, the Lecture Rooms and Theatre were fully used throughout the year for lectures, films and clubs whose activities relate to the Museum and which we like to encourage. The quantity of work from this Department is remarkable and it is hoped that the new Curatorial and Service group organized to advise and coordinate the Museum's activities in this important area will in fact continue to facilitate the work and improve the quality of exhibitions. One of the most encouraging aspects of the year has been the increasing concern of the Science Curators to show aspects of their work.

Sales and Information Desks

The Sales and Information Desks, during the year, have undergone a complete transformation by Display General and, following the resignation of Mrs. Rose Smith, are in course of thorough reorganization. Mr. John Langdon was appointed Chairman of the new Shops' Committee charged with formulating a new policy more in keeping with the Museum's functions, reputation and service to the public. While it must be placed on a proper commercial footing it should, at the same time, refer to the collections and maintain a standard of taste. Mrs. Downie has taken over the management of the shop with a new supervisor, Mrs. P. Dowton. The complete inventory, some of which was

the accumulation of many years, has been reviewed and where necessary thinned out. The new restaurant area will include the provision of a Children's Shop. Much thought is needed regarding future operation and it will take at least 18 months before the results of the new policy are known. The Sales Desk is an important area. Most of the public comes into contact only with its staff and with the guards. In their capable keeping our image must often rest. It is by no means easy to operate a good and economically viable museum shop but a great potential exists which the Museum hopes to enlist. The curators are expressing an increasing interest in what it offers and their promised help in suggesting objects to reproduce will be most appreciated.

Mrs. Roland Michener admires Sales display, during the March, 1970 visit of the Governor General



Members' Committee

Officers

Chairman, Mrs. R. L. MacFeeters
Vice-Chairman, Mrs. R. D. Hill
Secretary, Mrs. J. Jennings
Placement Chairman, Mrs. T. F. Storie
Asst. Placement Chairman,
 Mrs. D. Campbell
Comm. Membership & Publicity,
 Mrs. N. Stephens
ROM Membership, Mrs. H. D. Wilkins
ROM Volunteers, Mrs. W. T. Pinkerton
ROMarama Chairman, Mrs. J. Spanton
Past Chairman, Mrs. John A. Rhind

Touring Executive

Chairman, Mrs. J. W. Armstrong
Schedule, Mrs. H. M. Turner
Convention Schedule, Mrs. H. Locke
Education, Mrs. W. Wigle
Publicity & Secretary, Mrs. G. Kitching
Past Chairman, Mrs. R. H. Rohmer

Mrs. R. L. MacFeeters, Chairman, gave the 13th Annual Report of the Members' Committee. This expanding group of very dedicated women has cheerfully undertaken the many tasks submitted to them and the reports of the various committees fully illustrate their activities. Of seventy-four active members, twenty-eight are full-time tourers. The tourers gave 121 regular tours to 1800 people and this year also offered summer tours and 38 specially requested tours to 800 people. Many work in various departments and without exception the curators have expressed appreciation of their work. The Director would like here to express the Museum's thanks. The Committee has helped with membership and put their minds to finding new projects—not a difficult task in this busy place. ROMarama II on 20th October was their great gala evening which Mrs. Spanton referred to as "lightning striking twice." This hectic

affair has become one of the highlights of the season for this vital city. The Committee education programme which is the intellectual training our ladies undergo is a major programme in itself and a coach in public speaking also gave five two-hour lessons after which the recipients were all mercilessly assessed!

The new task force of Museum Volunteers swelled to 240 members—truly an impressive back-up which indicates no lack of broad interest. They staffed the Membership Desk seven days a week not only gaining 200 new members but also providing a warm welcome to visitors—especially those from out-of-town who wish to know what "highlights" of the collections they should see. They help with lectures. They "Meet and Greet" the milling hordes of school children and help members of Education in their visits to children in hospital. Special tours are arranged for these Museum Volunteers who are an enthusiastic group anxious to do even more for their museum. Finally the Treasurer reports a bank balance in the black—even after a number of contributions to the Museum. One member submitted the following comments:

"Our committee has seen many changes since its conception 13 years ago. It was born in the fabulous fifties, developed in the soaring sixties, and now, teenaged, has entered the seventies. Like old adolescents in today's complex world, it will face many problems and experience enormous changes. However, if its past record is a valid indication, I am confident it will sail into the eighties, still unique, enthusiastic, mature, involved and imaginative".

The Director salutes all our helpers and fervently hopes that the Committee's 'teens' will not be fraught with the problems usually associated with the generation gap!

Administration

P. C. Swann, *Director*
 Mrs. M. Walker, *Secretary to Director*
 Miss M. Knowland, *Assistant to Secretary*
 J. H. Harvey, *Secretary-Treasurer*
 Mrs. W. Greenwood, *Secretary to Secretary-Treasurer*
 Victor Roberts, *Financial Administrator*
 J. A. Robertson, *Accountant*
 Miss L. M. Roe, *Accounting Assistant*
 Mrs. M. Haliburton, *Accounts Payable*
 Miss N. Simkin, *Cashier*
 Miss B. Weltert, *Payroll*

Mrs. I. L. M. Allen, *Personnel Supervisor*

J. R. Smith, *Purchasing Agent*
 A. G. Jennings, *Messenger*

Registration

Miss Dorothea Hecken, *Registrar*
 Miss Marjorie Shook, *Assistant Registrar*
 Mrs. Faith Stanley, *Customs*
 Miss V. Mounstevan, *Stenographer*

Sales and Information Desks

Mrs. H. D. Downie, *Manager*
 Mrs. P. Dowton, *Supervisor*
 Mrs. H. Caldwell, *Clerk-Typist*
 Miss L. Bryant, *Information Clerk*
 Mrs. D. Rasky, *Sales*
 Mrs. M. Morgan, *Sales*
 Mrs. M. Bentley, *Sales (P/T)*
 W. S. Jong, *Stockroom Clerk*

Carpenters

Donald Sinclair, *Head Carpenter*
 A. Russell, *Assistant Head Carpenter*
 A. Campbell, *Carpenter*
 F. Carson, *Carpenter*
 J. Dooley, *Carpenter*
 W. Forrest, *Carpenter*
 M. Holder, *Carpenter*
 D. MacLeod, *Carpenter*
 D. Patterson, *Carpenter*
 E. Robertson, *Carpenter*

Laboratory of Analytical Systematics

A. Troicki, *Supervisor*
 Miss E. Fink, *Technician*

Preparators

Ivan Lindsay, *Chief Preparator*
 F. Howell, *Assistant Chief Preparator*
 H. Beaver, *Preparator*
 D. M. Lloyd, *Preparator*
 F. McKeen, *Preparator*
 G. O'Connor, *Preparator*
 V. Peverley, *Preparator*
 W. Renison, *Preparator*
 W. Routley, *Preparator*
 J. Stewart, *Preparator*

Alan Lawrence, *Building Superintendent*
 Arthur Insley, *Assistant Building Superintendent*

Clarkson, Gordon & Co.
Chartered Accountants

Royal Trust Tower
P.O. Box 251 Toronto-Dominion Centre
Toronto 111, Canada

Auditors' Report

To the Trustees of The Royal Ontario Museum:

We have examined the balance sheet of The Royal Ontario Museum as at June 30, 1970 and the statements of operating income and expenses, operating reserves and trust accounts for the year then ended. Our examination included a general review of the accounting procedures and such test of accounting records and other supporting evidence as we considered necessary in the circumstances, except as noted in the following paragraph.

Bequests, grants and donations to trust accounts, by their nature, are not susceptible of complete audit verification. Accordingly our verification of receipts from these sources was limited to a comparison of recorded receipts with bank deposits.

In our opinion, subject to the limitation in the scope of our examination referred to in the preceding paragraph, the accompanying financial statements present fairly the financial position of the museum as at June 30, 1970 and the results of its operations for the year then ended in accordance with accounting principles generally accepted for non-profit organizations applied on a basis consistent with that of the preceding year.

Toronto, Canada
September 28, 1970

Clarkson, Gordon & Co.

Clarkson, Gordon & Co.
Chartered Accountants

Notes to Financial Statements June 30, 1970

1. *Fixed assets*

The land and buildings of the museum are recorded in the accompanying balance sheet at a nominal value of \$1 and the contents of artifacts, equipment etc. are likewise valued at \$1.

Fixed assets are written off as purchased and are included in operating expenses and trust disbursements.

2. *Capital commitment*

There is an outstanding capital commitment in respect of the restaurant construction of \$360,000.

3. *Past service pension liability*

Most salaried employees of the museum are members of the University of Toronto's pension plans under which there is an unfunded liability in respect of past service. The amount of this liability relating to museum employees has not yet been determined but the museum is making annual payments of \$24,000 against it pending completion on an actuarial review currently being made.

The Royal Ontario Museum

(Incorporated by Special Act of the Ontario Legislature as a corporation without share capital)

Balance Sheet

June 30, 1970

(with comparative figures at at June 30, 1969)

<i>Assets</i>	<u>1970</u>	<u>1969</u>
Current:		
Cash	\$ 198,513	\$ 145,296
Short-term deposits	181,958	136,008
Travel advances	57,628	9,122
Accounts receivable	17,425	37,885
Inventories, at the lower of cost and net realizable value	50,528	40,772
	<u>506,052</u>	<u>369,083</u>
Trust assets:		
Short-term deposits	1,433,042	1,053,992
Marketable securities, at cost (market value — \$661,000; 1969 — \$721,000)	768,163	761,528
Accrued interest	33,194	14,010
	<u>2,234,399</u>	<u>1,829,530</u>
Fixed, at nominal values (note 1):		
Land and buildings	1	1
Contents	1	1
	<u>2</u>	<u>2</u>
	<u>\$2,740,453</u>	<u>\$2,198,615</u>
 <i>Liabilities</i>		
Current:		
Accounts payable and accrued liabilities	\$ 139,846	\$ 91,300
Trust liabilities:		
Expendable	614,373	358,516
Non-expendable	1,620,026	1,471,014
	<u>2,234,399</u>	<u>1,829,530</u>
Operating reserves:		
Reserve for restaurant construction	286,449	
Reserve for renovations and repairs to service departments	79,759	104,724
Unallocated balance		173,061
	<u>366,208</u>	<u>277,785</u>
	<u>\$2,740,453</u>	<u>\$2,198,615</u>

On behalf of the Board of Trustees:

Trustee

Trustee

(See accompanying notes to financial statements)

The Royal Ontario Museum

Statement of Operating Income and Expenses

Year ended June 30, 1970

(with comparative figures for the year ended June 30, 1969)

Operating Income and Expenses

	<u>1970</u>	<u>1969</u>
Income:		
Grants —		
Province of Ontario	\$3,250,000	\$2,700,000
Boards of Education	68,927	71,014
	<u>3,318,927</u>	<u>2,771,014</u>
Other income —		
Admission fees	244,284	219,935
Tuition fees	7,758	
	<u>252,042</u>	<u>219,935</u>
Service departments:		
Sales	102,671	109,663
Expenses	132,606	99,181
Net profit (loss)	<u>(29,935)</u>	<u>10,482</u>
	<u>222,107</u>	<u>230,417</u>
Total income	<u>3,541,034</u>	<u>3,001,431</u>
Expenses:		
Academic —		
Curatorial departments	1,896,831	1,502,312
Planetarium	200,563	228,770
Education	115,207	97,224
Library	84,204	78,863
Museology	3,120	
	<u>2,299,925</u>	<u>1,907,169</u>
Administration —		
General	247,342	235,861
Information services	117,602	51,039
	<u>364,944</u>	<u>286,900</u>
Buildings —		
Operation and maintenance	483,389	426,562
Renovations	95,687	87,591
	<u>579,076</u>	<u>514,153</u>
Employee benefits	208,666	163,436
Total expenses	<u>3,452,611</u>	<u>2,871,658</u>
Excess of operating income over expenses for the year	<u>\$ 88,423</u>	<u>\$ 129,773</u>

(See accompanying notes to financial statements)

The Royal Ontario Museum

Statement of Operating Reserves

Year ended June 30, 1970

(with comparative figures for the year ended June 30, 1969)

Statement of Operating Reserves

	<u>1970</u>	<u>1969</u>
<i>Unallocated balance</i>		
Balance, beginning of year	\$173,061	
Excess of operating income over expenses for the year	88,423	\$129,773
Net amount transferred from University of Toronto		148,012
Amount transferred from reserve for renovations and repairs to service departments (being expenditure charged to operating income)	24,965	
	<u>286,449</u>	<u>277,785</u>
Appropriations:		
Amount transferred to reserve for restaurant construction	286,449	
Amount transferred to reserve for renovations and repairs to service departments		104,724
Balance, end of year	<u>Nil</u>	<u>\$173,061</u>
<i>Reserve for renovations and repairs to service departments</i>		
Balance, beginning of year	\$104,724	
Amount transferred from (to) unallocated balance	(24,965)	\$104,724
Balance, end of year	<u>\$ 79,759</u>	<u>\$104,724</u>
<i>Reserve for restaurant construction</i>		
Amount transferred from unallocated balance	\$286,449	
Balance, end of year	<u>\$286,449</u>	

(See accompanying notes to financial statements)

The Royal Ontario Museum Statement of Trust Accounts Year ended June 30, 1970

(with comparative figures for the year ended June 30, 1969)

Statement of Trust Accounts

	<u>1970</u>	<u>1969</u>
<i>Non-expendable</i>		
Balance, beginning of year	\$1,471,014	\$1,223,317
Bequests, grants and donations	173,466	171,350
Life membership fees	15,570	34,275
Investment income capitalized	2,746	42,072
	<u>1,662,796</u>	<u>1,471,014</u>
Reclassified as expendable	42,770	
Balance, end of year	<u>\$1,620,026</u>	<u>\$1,471,014</u>
<i>Expendable</i>		
Balance, beginning of year	\$ 358,516	\$ 231,087
Bequests, grants and donations	750,709	285,719
Investment income:		
Expendable accounts	68,274	40,908
Non-expendable accounts	80,136	85,811
Funds held in trust for the museum	14,000	26,000
Annual membership fees	48,082	46,600
Admission fees	16,293	
Other income	61,141	45,318
	<u>1,397,151</u>	<u>761,443</u>
Investment income capitalized—transferred to non-expendable	2,746	42,072
	<u>1,394,405</u>	<u>719,371</u>
Reclassified from non-expendable	42,770	
	<u>1,437,175</u>	<u>719,371</u>
Disbursements (expenses, purchases of artifacts, equipment, etc.)	822,802	360,855
Balance, end of year	<u>\$ 614,373</u>	<u>\$ 358,516</u>

(See accompanying notes to financial statements)

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